

Acting upon the true self: The role of authentic leadership in enhancing followers' well-being at work

Anneleen Mortier

Supervisor: Prof. Dr. Peter Vlerick

A dissertation submitted to Ghent University in partial
fulfilment of the requirements for the degree of Doctor of
Psychology

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1 | Introduction and Literature Review

The first chapter starts with the importance of work-related well-being and how this is linked to authentic leadership. As the relationship between followers' well-being and authentic leadership is the main focus of the present dissertation, this chapter aims to give an overview of the literature on the broad spectrum of indicators of followers' well-being at work in relation to authentic leadership. Additionally, in order to understand authentic leadership better and how it is associated to followers' well-being, the nomological network of authentic leadership is discussed. This leads to the main research objectives of this dissertation. The empirical studies presented in the next chapters are briefly introduced with regard to these main objectives.

Introduction

Healthy employees contribute to their own performance as well as to the organizational performance (Avey, Reichard, Luthans, & Mhatre, 2011). Employees' well-being is a broad concept which can include physical, psychological and social health. The current dissertation focuses on psychological health since impaired psychological well-being is more likely to result in anxiety, stress, and depression, which are the most prevalent causes for sickness absence in Europe (European Agency For Safety And Health At Work., 2014). Also, the primary focus of previous studies was on negative aspects of well-being (e.g. turnover, sickness leave, burnout) to prevent financial losses. However, under the impulse of positive psychology (Seligman & Csikszentmihalyi, 2000), recent developments are more trending towards the positive states of well-being. As a consequence, the focus of organizational and governmental health strategies has shifted from treatment and intervention towards prevention by keeping employees' psychological well-being at level or to even increase it (e.g., European Agency For Safety And Health At Work., 2014).

In order to maintain or increase employees' well-being at work, it is important to examine which variables are associated with their psychological work-related well-being (van Dierendonck, Haynes, Borrill, & Stride, 2004). An important influencing factor is employees' work environment. For example, stressful workplaces can have negative consequences for employees' well-being (Danna & Griffin, 1999). One of the most important factors in the work environment that has a direct influence on employees' well-being is their direct supervisor, manager, or leader (e.g. James & James, 1989; Kuoppala, Lamminpää, Liira, & Vainio, 2008; Landeweerd & Boumans, 1994; Tepper, 2000). We will define employees in relation to their direct leader as "followers". Followers and their direct leader work together on a regular basis and their leader has direct control over them. Therefore, leaders and their

leadership style might directly influence followers' well-being at work. For example, the more capable the direct leader is in identifying the personal needs of every follower and in dealing with them, the more likely followers' basic psychological needs are satisfied (Leroy, Anseel, Gardner, & Sels, 2015). This then can result in an increase in their well-being (Ryan & Deci, 2001).

Leaders might differ in the type of leadership style and this style can also vary over time within leaders (Avolio, 2011). In the current dissertation, the link between one specific leadership style and followers' well-being is investigated, namely authentic leadership. Authentic leadership is an emerging and upcoming leadership style and has been linked with followers' well-being in previous studies (see below). Authentic leaders are self-aware, relational transparent, have moral values and consider a balanced approach towards all information. Additionally, leaders' authenticity might improve followers' work environment (Gardner, Avolio, Luthans, May, & Walumbwa, 2005) and help them in their self-determination (Leroy, Palanski, & Simons, 2012), which can benefit their work-related well-being.

Despite its recent popularity, the nomological network of authentic leadership is still limited in comparison to other leadership styles (Avolio, Walumbwa, & Weber, 2009). As a consequence, it is not clear how authentic leadership is linked to important indicators of followers' work-related well-being. Additionally, the question rises on how authentic leadership is linked with followers' well-being and why (Walumbwa & Wernsing, 2013). Therefore, this dissertation aims to develop this nomological network further by linking authentic leadership to various well-being indicators. Moreover, it proposes an explanatory psychological mechanism and identifies a boundary condition under which this relationship holds. Finally, it shows empirical evidence that authentic leadership itself can be an explanatory mechanism contributing to the enhancement of followers' well-being.

Since the focus of this dissertation is on how and when authentic leadership is associated

with followers' well-being, a follower-centric approach is used. This means that the followers' perceptions are taken into account, as the effect of leaders' behavior on followers' well-being can only exist when this is perceived by followers (Schyns & Schilling, 2013). In addition to this, the way authenticity is perceived can also be subjective (Kernis & Goldman, 2006). This follower-centric approach is also in line with the individual level approach this dissertation uses. This dissertation will focus on the individual person-level well-being, which is relatively stable within followers, but can vary over followers. Indeed, previous studies indicate that leaders can operate at the individual level when followers' well-being is considered (e.g. Kelloway, Turner, Barling, & Loughlin, 2008; Nielsen & Daniels, 2012; Perko, Kinnunen, Tolvanen, & Feldt, 2016).

This first chapter contains an introduction and selected literature review of research on followers' well-being, authentic leadership, mentions how it differs from related leadership styles, and gives an overview of possible mediators and moderators in the relationship between authentic leadership and followers' well-being. Based on this literature review, the overarching research model is presented, the dissertation's research questions are formulated, and an overview of four empirical studies related to the research objectives is given.

Well-Being at Work

Employees' well-being is not the equivalent of the absence of illness (e.g. Seligman & Csikszentmihalyi, 2000). It is a broad concept and includes a psychological, physical and social aspect (Diener & Seligman, 2004). The psychological well-being of an employee is his/her subjective experience of his/her autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance (Grant, Christianson, & Price, 2007; Ryff, 1989; Ryff & Keyes, 1995). There are several ways to categorize psychologi-

cal well-being indicators. The most popular one is the division between hedonic well-being and eudaimonic well-being (Ryan & Deci, 2001). Hedonic well-being refers to the extent in which employees have both good and bad experiences. Thus, it is a reflection of both the pleasure and the displeasure one experiences and assumes that employees try to maximize their pleasant experiences (Ryan & Deci, 2001). In contrast with this, the eudaimonic well-being perspective states that not all good experiences result in well-being or happiness. In order to experience well-being, employees must judge a certain situation (Ryan & Deci, 2001). Eudaimonic well-being is more broadly defined in terms of the fully functional person (Ryff, 1989) and is more focused on self-development. However, recent studies have shown that the correlation between hedonic and eudaimonic well-being is rather high (Kashdan, Biswas-Diener, & King, 2008; Waterman, Schwartz, & Conti, 2008), which questions the strict distinction of the two concepts.

A different way to categorize employees' psychological well-being is from micro to macro level (Fisher, 2010): well-being can vary within a person (transient level), can be relatively stable and vary between people (individual level) or is more broad and can be defined at the unit or organizational level (collective level). Examples for every respective level are flow state (a mental state of focus - being "in the zone" - Csikszentmihalyi, 1990), job satisfaction, and unit level engagement (Fisher, 2010). The largest amount of well-being outcomes currently studied in the literature are at the individual level. It is also mostly linked to work-related outcomes: high individual level well-being is linked to beneficial consequences for both employees and organizations such as lower rates of turnover (Griffeth, Hom, & Gaertner, 2000), lower absence (Hackett, 1989), lower counter-productive work behavior (Dalal, 2005), and less symptoms of depression, anxiety, and burnout (Faragher, Cass, & Cooper, 2005). Moreover, high well-being is positively linked to organizational citizenship behavior (Baranik & Eby, 2016).

The focus of individual level psychological well-being (from now on referred to as "well-being") can also differ. Fisher (2010) argued for three distinguished targets: the work itself (e.g. thriving), contextual factors of the job (e.g. job satisfaction), and the organizational level (e.g. organizational commitment). The different outcomes studied in this dissertation are partly based on this distinction. Because of the focus on the individual level and its outcomes, no outcomes with an organizational focus will be studied. As a consequence, derived from the division of Fisher (2010), the present dissertation studied *well-being focused on the work* and *well-being focused on contextual factors*. However, a disadvantage of this crude division, is that there is no room for the self. As previously mentioned when discussing the eudaimonic approach of well-being, self-development is also a crucial part of well-being (Ryff & Singer, 2008). Therefore, the current dissertation also studied a third focus of well-being, namely *well-being focused on the self-development*. It is also important to include self-development, since personal development and growth are seen as part of the fully functioning person (Ryff, 1989) and this is part of psychological well-being (Ryff & Singer, 2008). This is also motivated by the self-actualization theory of Maslow (1954)

To summarize, this dissertation will study three outcomes at the individual level. The first outcome, thriving, is focused on the work itself and has both an affective (vitality) and cognitive (learning) component (Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, 2005). The second outcome, job satisfaction, is focused on the contextual factors of the job, since it mainly consists of affective judgments about different job aspects (Weiss, 2002). Lastly, the third outcome, authentic followership, focuses on employees' self-development, by taking into account their authentic self and moral values (Gardner et al., 2005). These three outcomes together provide a broad perspective of employees' well-being at work.

So far, a variety of individual (e.g. personality - Ng, Sorensen, & Eby, 2006), work (e.g. job and task characteristics - Hackman & Oldham, 1975; Morgeson & Humphrey, 2006;

Warr, 2007), and organizational (e.g. role in the organization - Jackson & Schuler, 1985) variables have been associated with employees' well-being. One of the most important factors of employees' well-being at work is their direct leader (Kuoppala et al., 2008). Previous studies argued that direct leaders can influence employees' well-being (van Dierendonck et al., 2004) because they play an important role in employees' psychosocial work environment (Sparks, Faragher, & Cooper, 2001). Empirical evidence that employees' direct leader has an association with employees' well-being can be found in multiple studies. For example, destructive leadership is linked to an increase in stress (Chen & Kao, 2009; Tepper, 2000) and turnover intentions (Schyns & Schilling, 2013), and a decrease in well-being (Burris, Deters, & Chiaburu, 2008; Hobman, Restubog, Bordia, & Tang, 2009).

In contrast with this, leaders can also have a positive influence on employees' well-being. For example, there is a positive relationship between direct leaders' consideration and employees' lowered job tension (Sheridan & Vredenburgh, 1978) and higher levels of job satisfaction (e.g. Logan & Ganster, 2005). Also, there is evidence that a beneficial treatment by the supervisor is related to higher levels of employees' well-being (Kuoppala et al., 2008). To summarize, employees' direct leader and his/her leadership style is associated to employees' psychological well-being at work. From now on, those employees will be referred to as followers.

The studies cited above already give an indication of the body of research on leadership and followers' well-being. The current dissertation will focus on one particular leadership style, namely authentic leadership. This is a relative recent leadership paradigm, with only little research on its explaining mechanics and boundary conditions for the potential relationship between authentic leadership and followers' well-being (Avolio & Gardner, 2005; Gill & Caza, 2015). In what follows, the authentic leadership style will be discussed, how it differs from other leadership styles, and the research up to now in relation to followers'

well-being will be presented. Next, basing on this literature review, the research objectives of this dissertation will be given.

Authentic Leadership

Authentic leadership consists of four dimensions: self-awareness, relational transparency, moral perspective, and balanced processing (Avolio & Gardner, 2005). Self-awareness reflects the awareness of the leader of his/her own strengths, weaknesses, talents, values, feelings and desires (Avolio, Luthans, & Walumbwa, 2004; Ilies, Morgeson, & Nahrgang, 2005). Self-aware leaders know their multifaceted self, with potentially contradictory self-aspects, and accept this (Ilies et al., 2005). An authentic leader expresses these perceptions and acts upon them, using relational transparency towards others (Avolio & Gardner, 2005). Authentic leaders provide open communication, which makes them trustworthy (Ilies et al., 2005). As a consequence, s/he says what s/he really means, instead of pleasuring others. They are "genuine" leaders, rather than "fake". The third component is moral perspective, which refers to an internalized and integrated form of self-regulation (Avolio & Gardner, 2005). As a consequence, authentic leaders can resist external pressure. Lastly, balanced processing reflects the objectivity of both internal and external experiences (Ilies et al., 2005). Authentic leaders do not deny, distort or exaggerate information (Ilies et al., 2005) which ensures them that they take all relevant information into account before making a decision (Avolio & Gardner, 2005). This component also reflects the leader's personal integrity (Ilies et al., 2005). Together those dimensions represent a leader who knows his/her strengths and weaknesses, communicates his/her ideas, opinions, and visions clearly to others, has clear moral standards upon which s/he acts, and reflects upon all relevant information.

These four components of authentic leadership were empirically validated by both

Walumbwa, Avolio, Gardner, Wernsing, and Peterson (2008) and Neider and Schriesheim (2011). Walumbwa et al. (2008) were the first to develop a scale to measure authentic leadership, the Authentic Leadership Questionnaire (ALQ). The scale measures the four dimensions described above. They found initial evidence for the four components of authentic leadership using samples in the United States of America, the People's Republic of China and Kenya. Their results showed that the four components loaded on a higher-order factor (authentic leadership), which differed from both transformational and ethical leadership.

However, several issues were raised concerning the study of Walumbwa et al. (2008). Content validity relied partially on doctoral students and other academics, which are not representative for the practitioners' field. Discriminant validity was weak with related constructs and the structural validity was being questioned (Neider & Schriesheim, 2011). In order to capture these problems, Neider and Schriesheim (2011) developed a different questionnaire, the Authentic Leadership Inventory (ALI). Their results also supported the hierarchical model consisting of four dimensions loading on a second-order latent variable. The authors also found evidence for the discriminant validity with transformational leadership (Podsakoff, MacKenzie, Moorman, & Fetter, 1990) and impression management (Paulhus, 1998).

Authentic leadership and Other Leadership Styles.

It has been argued that authentic leadership style is not only a positive leadership style, but might also be a root construct of other positive leadership styles (Avolio & Gardner, 2005). This means that authentic leadership style can encompass transformational, charismatic, ethical, and other positive leadership styles (Avolio & Gardner, 2005). Given this positive foundation, there is some conceptual overlap between authentic leadership and other positive leadership styles (Anderson & Sun, 2017). However, there are several distinctions between

authentic leadership and other leadership styles. As already argued above, both Walumbwa and colleagues and Neider and Schriesheim found empirical evidence for the discriminant validity between authentic leadership style and transformational leadership style. However, there is also theoretical evidence that argues that authentic leadership style differs from transformational, ethical, charismatic, and servant leadership style.

Authentic Leadership and Transformational Leadership. Transformational leadership consists of four dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration ("the four I's") (Bass, 1985). The first dimension, idealized influence (or "charisma"), represents how the leader acts towards his/her followers so that they can identify themselves with their leader. Next, inspirational motivation reflects the inspiring vision the leader creates for his/her followers. The third dimension, intellectual stimulation, displays to what degree the leader challenges certain given aspects and assumptions. Lastly, individualized consideration, represents the responsiveness of the leader on the needs and concerns of their followers (Bass, 1985).

Given these four dimensions, one can already see a certain overlap between authentic leadership and transformational leadership: both are attentive towards their followers and anticipate on their needs, and they both do not take certain information for granted and try to challenge supposed beliefs. Indeed, there is evidence demonstrating the overlap between transformational and authentic leadership (Banks, McCauley, Gardner, & Guler, 2016; Hoch, Bommer, Dulebohn, & Wu, 2016). However, the difference between authentic leadership and transformational leadership lies in the approach and underlying motives of the leader. Indeed, a moral component, which is present in authentic leadership (moral perspective dimension), is not present in the dimensions of transformational leadership. Therefore, transformational leaders can be deceptive and manipulative (Bass & Steidlmeier, 1999). How

the absence of morality plays a difference between the two leadership styles is more clear at the dimensional level of transformational leadership. Transformational leaders' influence can be based on an "us-versus-them" mentality (idealized influence), their inspiration can be based on deceit and manipulation (inspirational motivation), their stimulation can be manifested from false assumptions (intellectual stimulation), and their consideration can have the underlying motivation of creating dependent followers (Bass & Steidlmeier, 1999).

Another difference between authentic leadership and transformational leadership lies in their sense of self and how they express this (Avolio & Gardner, 2005). Authentic leaders know their values, beliefs and ethics and express this by words and actions. Transformational leaders also have this sense of self, but express this using a vision and a sense of purpose (Avolio & Gardner, 2005).

Another distinction between authentic leadership and transformational leaders lies in the followers' development. Transformational leaders rely on their charisma and inspirational influence to develop their followers in leaders (Perko et al., 2016). In contrast with this, authentic leaders use their authenticity to develop their followers. This does not necessary has to be the development of leaders, but focuses on self-development (Gardner et al., 2005; Walumbwa et al., 2008).

Authentic Leadership and Charismatic Leadership. A charismatic leader is someone who embodies a vision and expresses this towards his/her followers by means of inspirational messages, expressing this vision with passion, and also non-verbal communication (Shamir, House, & Arthur, 1993). They inspire followers by describing a desirable future, which creates an emotional attachment towards the leader (Anderson & Sun, 2017; Shamir et al., 1993). Charismatic leadership consists of five dimensions: being sensitive to constraints, threats and opportunities in the external environment, articulating vision, taking personal

risks, displaying unconventional behaviour, and being sensitive to followers' needs (Conger & Kanungo, 1994). Authentic leadership and charismatic leadership share common grounds in the sense that they both are able to let followers internalize their goals, values and beliefs (Avolio & Gardner, 2005; House, 1977).

One of the differences between charismatic and authentic leadership lies in their approach towards their followers. As mentioned above, authentic leaders focus on their followers' self-development using their self-awareness. This is not the case for charismatic leaders (Conger & Kanungo, 1987): they try to create an emotional dependence of their followers (Bass, 1985; Gardner & Avolio, 1998). Along the same lines, charismatic leadership does not focus on followers' self-awareness, whereas authentic leadership does. Authentic leadership is also more focused on the moral component than charismatic leadership (Avolio & Gardner, 2005): charismatic leaders can still behave unethically, which is considered as the dark side of charisma (Anderson & Sun, 2017). Another difference is that authentic leaders do not stand out, whereas charismatic leaders try to communicate their vision through charisma (May, Chan, Hodges, & Avolio, 2003).

Authentic Leadership and Ethical Leadership. Ethical leadership has gained its popularity after several large scale frauds (e.g. Enron and WorldCom). Ethical leadership consists of seven dimensions: fairness, power sharing, role clarification, people orientation, integrity, ethical guidance, and concerns for sustainability (Karlshoven, Den Hartog, & De Hoogh, 2011). It shares common ground with authentic leadership since they are both based on ethics, they both are altruistic and integer (Avolio & Gardner, 2005; Brown & Treviño, 2006).

The main difference with authentic leadership is that ethical leaders emphasize the moral component the most and thus also display transactional behaviors in order to achieve this:

they reward or punish followers for their ethical or unethical behavior (Karlshoven et al., 2011). In contrast with this, authentic leaders focus more on authenticity and self-awareness (Avolio & Gardner, 2005), which is not part of ethical leadership (Brown & Treviño, 2006).

Authentic Leadership and Servant Leadership. Servant leaders are mainly focused on others. Their primary goal is to serve others, such as their followers, which results in the growth of their followers (Greenleaf, 1970). There is some disagreement on the number of dimensions that encompass servant leadership. For example, Barbuto and Wheeler (2006) found support for a five dimensional construct, whereas Liden, Wayne, Zhao, and Henderson (2008) found support for a seven factor solution. The most recent developed scale by van Dierendonck and Nuijten (2011) found support for eight dimensions, which are: standing back, forgiveness, courage, empowerment, accountability, authenticity, humility, and stewardship.

As can be seen from those different dimensions, authenticity is seen as a component of servant leadership. This is described as: “being true to the self and accurately representing this to others” (van Dierendonck & Nuijten, 2011, p. 252). Indeed, there are similarities between servant leadership and authentic leadership. Authentic leaders are willing to serve others more effectively, and because of this, want to understand their leadership better in order to do so (George, 2003). However, the major difference between the two leadership styles, lies in the rationale of serving others. In contrast to servant leaders, authentic leaders will not give in into every desire of their followers, in order to still meet the desires of other parties and individuals. Additionally, servant leadership is being predefined by those theoretical dimensions, (whether this is in five, seven, or eight dimensions), authentic leadership is something that flows from the leader itself. Because this leadership style depends on self-awareness and knowing who you truly are, this is very dependent on the leader him/herself.

Because of this, authentic leaders can adapt to different situations.

Authentic Leadership and Followers' Well-Being

The theoretical link between authentic leadership and followers' well-being can be derived from the core of authentic leadership, namely authenticity. It has been argued that authenticity has both a self-orientation and an other-orientation (Ibarra & Barbulescu, 2010). This can also be linked to the theories of Freud (1923) and Higgins (1987): Freud acknowledges the presence of the Ego, Id, and Superego. The Id is reliant on the self, whereas the Ego and the Superego are formed based on others and their expectations. Higgins discusses the actual self, ideal self, and ought self. The actual self is who you truly are, the ideal self is who you want to be and the ought self is who you are supposed to be. The actual self is formed by the person's own beliefs, whereas the ideal self and the ought self can be influenced by others. This shows that we integrate the expectations, values and norms of others in your identity. Therefore, acting truly upon yourself (i.e. acting authentically) is both self-oriented as other-oriented. We argue that leaders acting authentically focused on the self-orientation will not directly influence followers' well-being, since followers cannot know what the leader truly wants. However, it is the other-orientation, the relational aspect that takes others' norms, beliefs and values into account, that will be perceived by the followers. Thus, an authentic leader focused on the other-orientation, will mostly directly contribute to their followers' well-being. Below, we will discuss both these different orientations.

The self-orientation of authenticity is an inward oriented focus. Leaders know their strengths and weaknesses, they know what they want and what makes them happy. In terms of well-being theories, the hedonistic approach states that good experiences will lead to an increase in personal well-being whereas bad experiences will lead to a decrease in personal well-being. Translated to authenticity, authentic leaders will try to seek as much positive

experiences as possible and avoid negative experiences in order to maintain or increase their well-being. As a result, authentic leaders will experience more well-being (Kahn, 1992; Edmondson, 2001). The eudaimonic approach focuses on the fully functioning person or leader (Ryff, 1989). It states that well-being will occur when the leader is fully engaged in an activity that reflects one's true self (i.e. the leader is being authentic) (Csikszentmihalyi, 1990; Ilies et al., 2005). As a consequence, authentic leaders express their true selves, which results in an increase in their own well-being.

The other orientation of authenticity is the relational aspect of authenticity. It is associated with how we relate to and interact with others (Wood, Linley, Maltby, Baliousis, & Joseph, 2008), from which the true self emerges (Harter, 2005). However, this does not imply that leaders worry about whether their followers perceive them as authentic. Authenticity oriented to others is about the relationship with others and the collective norms and values. For example, Sartre (1945) believes that we should create our own self, character and destiny. This creates many opportunities and freedom. However, this does not imply that authentic leaders can simply do what they want, they still have to take the collective moral values and norms into account. As a consequence, certain situations can elicit a conflict between the personal moral values and the values of society, and authenticity is then seen as a trade-off between those personal values and goals with the situational values and goals. Whenever this conflicts, there is a state of cognitive dissonance (Festinger, 1957) and can result in an experience of inauthenticity: how you want to behave is in conflict with how you should behave. Put differently, there is an inconsistency between the situation and the true self (Harmon-Jones & Mills, 1999), and one will find him- or herself as inauthentic. A consequence of this dissonance, is impression management, an expression of inauthenticity (Goffman, 1959; Snyder, 1974). This is the strategic presentation of the self, which is enacted to invoke a desired response from others (Leary, 1990). When a leader is inauthentic

and falls into impression management towards their followers, this can result in lower trust towards their leader (DuBrin, 2011), affecting followers' well-being (Kelloway et al., 2008) .

Another way the cognitive dissonance is experienced is that one's moral integrity and self-worth is threatened (Sherman & Cohen, 2006; Steele, 1988). When leaders' moral integrity is compromised, this might lead to role ambiguity and ineffective goal-setting, resulting in lower levels of job satisfaction, job engagement, health and life satisfaction (Prottas, 2013), which can be contagious and afflict followers' well-being. Also, those leaders will not be capable of rewarding or punishing followers' behaviors according to stated procedures. Therefore, those leaders will be perceived as low on organizational justice and this can result in a lower well-being at work (Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001). On a similar note, whenever the leaders' self-worth is compromised, this can lead to negative judgments of their followers, resulting in lower trust and lower quality relationships (Toor & Ofori, 2009). This in turn, can reduce followers' well-being at work.

The relationship between authentic leadership and followers' well-being can also be argued from authentic leadership theory. Firstly, due to their self-awareness and relational orientation, they can influence their followers' identification with the leader and to the organization. This gives a social identity to their followers (Tajfel, 1982), providing them a set of skills on how to react in different situations (van Knippenberg, 2000). Also, followers will become more authentic themselves since they internalize the values and norms of the leader (Shamir et al., 1993). Secondly, authentic leaders can foster followers' well-being through emotional contagion. Therefore, whenever an authentic leader expresses positive emotions, this will influence the mood of their followers (Fredrickson, 2003). As discussed previously, authentic leaders know which situations to encounter or avoid to experience positive emotions (hedonistic approach). Because of their authentic nature, they will also express this

more towards their followers, resulting in followers who experience more positive emotions than in comparison to followers with an inauthentic leader (Ilies et al., 2005). Thirdly, authentic leaders act as a role model towards their followers (Ilies et al., 2005). They foster personal identification in their followers. Through social learning (Bandura, 1977), followers learn from their leader by observation. Because of this, followers become more aware of themselves, encouraging their own self-awareness. Also, authentic leaders can encourage self-development by taking on challenging situations. Followers can learn from these experiences through social learning, providing them skills and competences to tackle other similar situations. Consequently, completing challenging situations will benefit their well-being (Ilies et al., 2005). Fourthly, authentic leaders support the basic needs of their followers (competence, autonomy and relatedness - Ryan & Deci, 2000). The fulfillment of these needs can result in higher experienced authenticity (Leroy et al., 2012), which in its turn, results in higher levels of experiences well-being (Ryan & Deci, 2001). Lastly, authentic leaders can positively influence followers' well-being by creating an environment in which high quality relationships can be established (Ilies et al., 2005).

To summarize, we can argue from different theories that authenticity and authentic leadership can contribute to followers' well-being at work through a variety of mechanics: (1) other-orientation, (2) social identity, (3) emotional contagion, (4) social learning, (5) fulfilling basic needs, and (6) positive social exchanges.

Previous studies have already shown evidence in favor of the association between authentic leadership and followers' well-being. An overview of these empirical studies can be found in Table 1.1. Indeed, authentic leadership has positive associations with affective commitment, authentic followership, empowerment, engagement, esprit, job satisfaction, organizational citizenship behavior, organizational commitment, and work happiness. Also, authentic leadership is negatively associated with burnout, bullying, intentions to turnover,

and work stress.

Table 1.1. Empirical findings on the relationship between authentic leadership and followers' well-being

Well-being outcome	Source
Affective commitment	Semedo, Coelho, and Ribeiro (2016)
Authentic Followership	Xiong, Lin, Li, and Wang (2016)
	Leroy et al. (2015)
	Laschinger and Fida (2014a)
Burnout	Laschinger and Fida (2014b)
	Laschinger, Wong, and Grau (2012)
	Read and Laschinger (2016)
Bullying	Wong and Cummings (2009)
	Warszewska-Makuch, Bedynska, and Zolnierczyk-Zreda (2015)
	Choi and Ahn (2016)
Empowerment	Shapira-Lishchinsky and Tsemach (2014)
	Valsania, Moriano, and Molero (2016)
	Wong and Laschinger (2013)
Engagement	Alok and Israel (2012)
	Al Zaabi, Ahmad, and Hossan (2016)
	Azanza, Moriano, Molero, and Mangin (2016)
	Bamford, Wong, and Laschinger (2013)
	Giallonardo, Wong, and Iwasiw (2010)
	Scheepers and Elstob (2016)
	Stander, de Beer, and Stander (2015)
	Mehmood, Nawab, and Hamstra (2016)
	Wong, Laschinger, and Cummings (2010)
Esprit	Henderson and Hoy (1983)
Job satisfaction	Choi and Ahn (2016)
	Cerne, Dimovski, Maric, Penger, and Skerlavaj (2014)
	Fallatah and Laschinger (2016)
	Giallonardo et al. (2010)
	Jensen and Luthans (2006)
	Laschinger (2012)
	Laschinger and Fida (2014a)
	Laschinger et al. (2012)
	Rahiminia and Sharifirad (2015)
	Walumbwa et al. (2008)
	Wong and Laschinger (2013)
	Al Zaabi et al. (2016)
Organizational Citizenship Behavior	Coxen, van der Vaart, and Stander (2016)
	Valsania, Leon, Alonso, and Cantisano (2012)

Table 1.1. Empirical findings on the relationship between authentic leadership and followers' well-being (continued)

Well-being outcome	Source
Organizational Commitment	Walumbwa et al. (2008)
	Choi and Ahn (2016)
	Darvish and Rezaei (2011)
	Gatling, Kang, and Kim (2016)
	Guerrero, Lapalme, and Séguin (2015)
	Kiersch and Byrne (2015)
	Leroy et al. (2012)
	Peus, Wesche, Streicher, Braun, and Frey (2012)
Intentions to turnover	Walumbwa et al. (2008)
	Azanza et al. (2016)
	Gatling et al. (2016)
	Jensen and Luthans (2006)
	Kiersch and Byrne (2015)
	Laschinger (2012)
	Laschinger and Fida (2014a)
Work happiness	Laschinger and Fida (2014b)
	(Jensen & Luthans, 2006)
Work stress	(Kiersch & Byrne, 2015)
	(Rahiminia & Sharifirad, 2015)

The present dissertation will focus on three different well-being outcomes: one is already quite established in the literature (job satisfaction), one has theoretical underpinning, but only with limited empirical support (authentic followership), and one has not been linked to authentic leadership so far (thriving). Not only do these well-being outcomes differ in terms of empirical evidence, they also differ in terms of focus (see above): well-being focused at the work itself (thriving), well-being at the contextual factors of the job (job satisfaction), and well-being focused at the self-development level (authentic followership).

Additionally, the current dissertation also investigates one potential mediator which might explain the positive association between authentic leadership and followers' well-being. More specific, empathy was investigated as a potential mediator since it can be linked to the

transparent relationship authentic leaders have with their followers. Along those lines, this dissertation also studies whether authentic leadership itself can be an explaining mechanism in the relationship between leaders' attachment style and followers' well-being. Attachment style is an internal working model that affects current and future relationships (Fraley, 2007). Since followers' well-being can be influenced by the relationship with their direct leader, leaders' attachment style can help in understanding how authentic leadership is related to followers' well-being.

Finally, the current dissertation also investigates a potential moderator in the relationship between authentic leadership and followers' well-being (i.e. change perceptions). Since the relationship between leaders and followers does not exist in a vacuum, it is also important to include contextual variables to study how they can potentially influence this relationship. In the current dissertation, we investigated whether followers' change perceptions of an ongoing merger can influence the potential positive relationship between authentic leadership and their job satisfaction.

Antecedents of Authentic Leadership

As the previous section provided empirical evidence for the association between authentic leadership and followers' well-being, it seems fruitful to develop or stimulate authentic leadership among leaders. Consequently, this raises the question of the potential antecedents of authentic leadership. However, in contrast to the growing literature on studies investigating the potential outcomes of authentic leadership, little studies have investigated the potential antecedents of this leadership style. One potential antecedent that has been studied, is psychological capital (Jensen & Luthans, 2006). Psychological capital finds its origin in the positive psychology and is defined as "who you are" (Luthans & Yotissef, 2004). It consists of three dimensions: resiliency, hope, and optimism, which seem to be linked to authentic

leadership (Luthans & Avolio, 2003).

Other potential antecedents of authentic leadership are self-knowledge and self-consistency (Peus et al., 2012). This is in line with the concept of an authentic leader who "has to know oneself" (Harris & Kacmar, 2002) and who "has to stay true to their true self" (Gardner et al., 2005). A leader who have a lot of self-knowledge, will reflect more on his/her strengths and weaknesses (i.e. are more aware of their self) and will thus be perceived as more authentic. Likewise, a leader who is consistent in his/her talk and behavior, will also be perceived as more authentic.

There are also theoretical arguments for the contribution of leaders' personal history to their self-awareness and authenticity (Gardner et al., 2005). Attachment style is one of those concepts that grasps leaders' personal history. The attachment style is formed by earlier experiences and relationships and is a working model that is generalizable towards other relationships (Fraley, 2007). Hence, attachment style can influence how leaders behave and how their direct followers perceive them. Therefore, the current dissertation aimed to identify a new to the literature and potential antecedent of authentic leadership, namely attachment style, in order to increase followers' well-being (i.e. authentic followership).

This all leads us to the present dissertation and its research questions.

Present Dissertation

In the present dissertation six main research objectives are formulated.

The first research objective is to investigate how to measure authentic leadership in a Flemish context in a reliable and valid way. Since the ALQ was criticized due to its content, discriminant and structural validity, the ALI was used (Neider & Schriesheim, 2011). Factorial validity and reliability of a Dutch version of the ALI will be studied. Also, the

robustness of the findings will be tested in two independent samples of followers. Thus, *Chapter 2* tried to replicate the four theoretical based dimensions as found with the English version of the ALI and whether this can be replicated in an independent sample. Although this is a succinct study, this second chapter is fundamental to the entire dissertation. Because studies on validity and reliability on the (translated) ALI are rather scarce, and non-existing in Dutch, this chapter provides evidence on how authentic leadership style, measured by the Dutch ALI, should be taken into account in the further empirical chapters: should ALI's measurement model be framed on the overarching level (authentic leadership), the dimensional level (self-awareness, relational transparency, moral perspective, and balanced processing), or both?

The second research objective of this dissertation was to identify a potential antecedent of authentic leadership. As already mentioned above, authentic leadership can have a positive association with followers' well-being. However, in order to develop or stimulate authentic leadership, one must know which variables are associated with authentic leadership and which can help in its development. *Chapter 3* studies whether attachment style of the leader is associated with authentic leadership and if this is positively associated with followers' well-being.

The third research objective is to study the different well-being outcomes associated with authentic leadership. This dissertation will use three different followers' outcomes: well-being based on the work itself (thriving), well-being focused on the contextual factors of the job (job satisfaction) and well-being focused on followers' self-development (authentic followership). These three different types of well-being can also be divided in increasing empirical evidence (job satisfaction) to single empirical evidence (authentic followership) to no current research on this association (thriving). Given the broad approach to answer this research objective, every type of well-being is studied in a separate chapter. *Chapter 5* will

investigate how authentic leadership is related to job satisfaction. Next, *Chapter 4* will study how authentic leadership is associated with thriving. Finally, *Chapter 3* will try to partially replicate the findings of Leroy et al. (2015) by studying the positive association between authentic leadership and authentic followership. Together, those three chapters should provide more insight in how authentic leadership is associated to a wide perspective of followers' well-being.

The fourth research objective aims to study mediating mechanisms in the relationship between authentic leadership and followers' outcome. *Chapter 4* will focus on this, introducing leaders' empathy as a potential mediator in the relationship between authentic leadership and followers' thriving. This study combined the field of authentic leadership with the field of emotion regulation (i.e. empathy). Indeed, true to the definition of self-awareness, authentic leaders are more aware of their own emotions. In addition to this, they are also more susceptible to the emotions of others, and understand how they feel. Considering this, authentic leaders can be perceived as empathic. This, in its turn, might be beneficial to followers' well-being at work.

The fifth research objective investigates a potential moderator in relationship between authentic leadership and job satisfaction. As previously mentioned, this positive association has been empirically tested in multiple studies. However, our aim was to extend this knowledge by including a moderator in this relationship which demonstrates in which conditions this relationship holds. *Chapter 5* aims to investigate this by including followers' change perceptions at work, using a two-wave design.

Lastly, *the sixth research objective* aims to study whether authentic leadership in itself can be a mediator. *Chapter 3* investigates this by studying if authentic leadership can explain the relationship between leaders' attachment style and followers' authentic followership.

Figure 1.1 provides a general overview of the research model used in the present dis-

sertation. Next, an overview of each empirical chapter will be presented with reference to the overall research model.

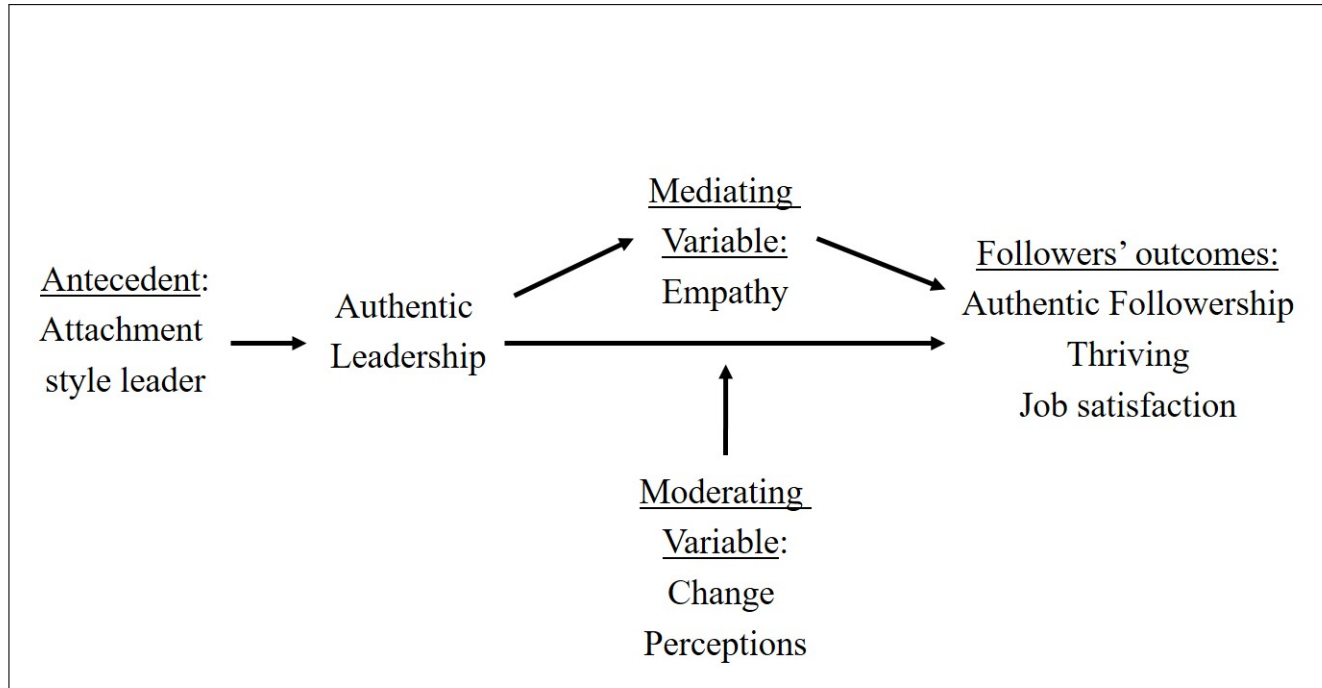


Figure 1.1. General research model of the current dissertation.

Outline of the present dissertation

The four empirical studies are presented in *Chapters 2 to 5*. Each chapter will be briefly outlined and presented, with reference to the six research objectives mentioned above.

As authentic leadership is the constant variable in the entire dissertation, it is necessary to have an instrument that can measure it in a reliable and valid way. *Chapter 2* aims to develop a reliable and valid scale to measure authentic leadership in a Flemish context (Research Question 1). To do so, the ALI (Neider & Schriesheim, 2011) was translated into Dutch. Next, two samples, each consisting of 126 followers, rated their direct leader using this Dutch translation. These two independent samples were used to demonstrate

factorial validity and the robustness of the findings, to rule out that unforeseen sample specific characteristics influenced the results.

Chapter 3 studies whether attachment style of the leader is associated with authentic followership. More specifically, it is hypothesized that leaders' avoidant attachment style is negatively related to authentic followership (Research Question 2). Additionally, this study introduces authentic leadership as the mediating mechanism in this relationship (Research Question 6 – See Figure 1.2). By investigating the relationships between those three variables, this study contributes to the literature in two ways. Firstly, we focused on followership and how this can be developed and maintained (Hernandez, Eberly, Avolio, & Johnson, 2011), which benefits followers' self-development. We propose that authentic leadership can help in increasing authentic followership. Theoretically it has already been argued that authentic leaders are associated with authentic followers because of their self-awareness and self-regulation (Avolio & Gardner, 2005; Ilies et al., 2005). Also, the study of Leroy et al. (2015) showed evidence in favor of this positive relationship. Secondly, this is one among the first studies to investigate potential antecedents of authentic leadership. It has been argued that early experiences such as personal history can influence leaders' growth and self-awareness (Gardner et al., 2005). By using the attachment theory as theoretical framework, opportunities can be created towards the development of authentic leadership and its potential associations with followers' outcomes.

In *Chapter 4*, the association between authentic leadership and thriving (Research Question 3 – see Figure 1.3) is studied. Thriving is a recent well-being outcome, which is related to work engagement. It consists of two dimensions: vitality and learning. Thriving is beneficial for both the follower and the organization. Previous studies provided evidence in favor of the association between leadership and learning (Loon, Lim, Lee, & Tam, 2012) and leadership and vitality (Carmeli, Ben-Hador, Waldman, & Rupp, 2009), however none

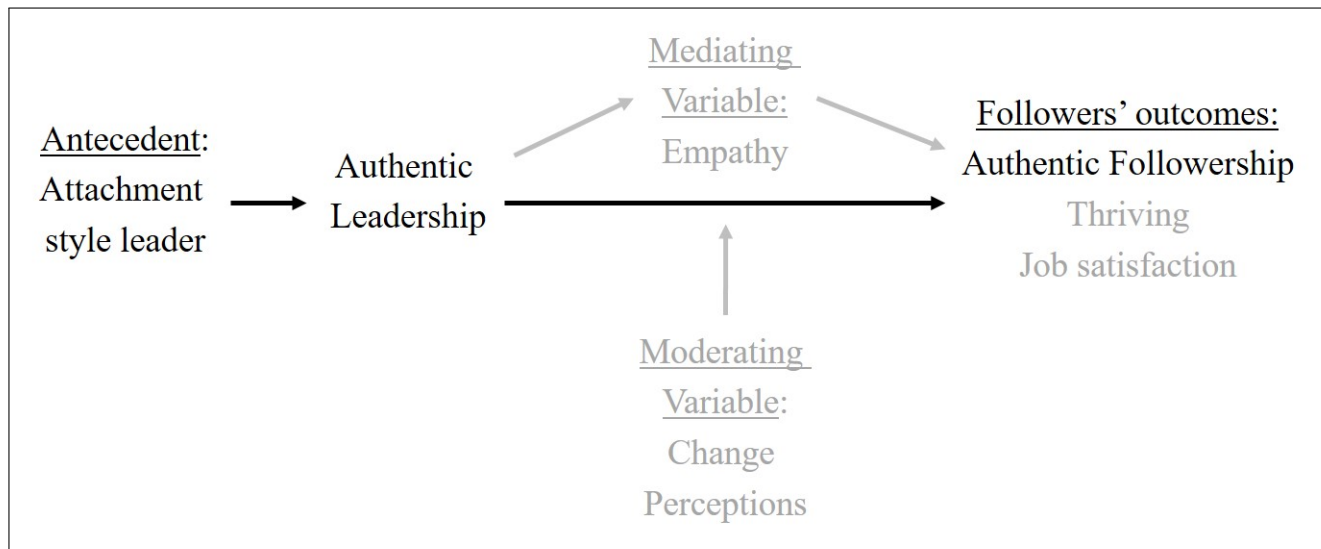
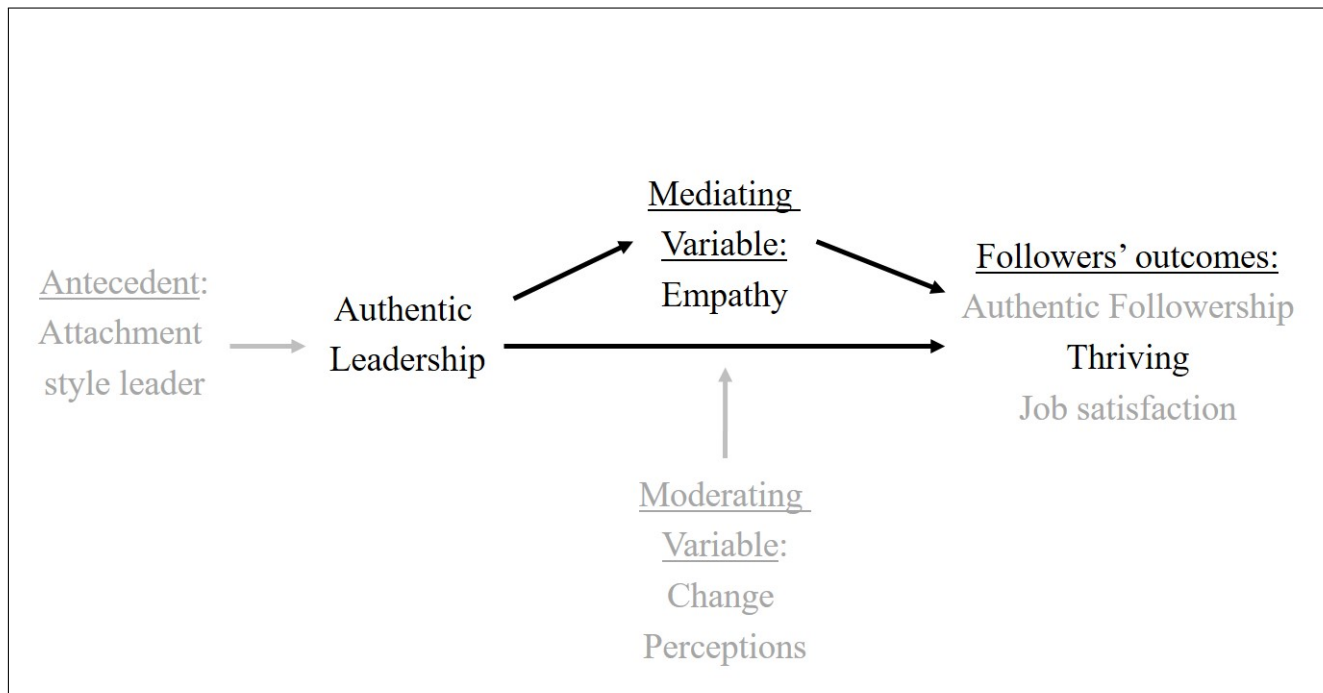


Figure 1.2. Research design of *Chapter 3*.

have demonstrated how authentic leadership is related to those dimensions. On top of this, this study introduces empathy as a potential mediator in the relationship between authentic leadership and followers' thriving (Research Question 4). Empathy is the ability to recognize the moods and emotions of others (Yukl, 2010). Empathetic leaders also understand these moods and emotions, and acts upon this. Therefore, this ability requires listening to others and communicating in an effective way. These skills are related to authentic leadership: they are relational oriented, are integer and will "walk their talk". They also consult all relevant information, so they can understand how and why the other person feels the way s/he does. Hense, authentic leaders will be more aware of their followers' feelings, recognize them and show more empathy towards their followers, increasing their well-being at work (i.e. thriving).

The last empirical study, *Chapter 5*, studies the relationship between authentic leadership and followers' job satisfaction (see Figure 1.4). As already mentioned, several studies have demonstrated the positive association between authentic leadership and followers' job

Figure 1.3. Research design of *Chapter 4*.

satisfaction (see Table 1.1). However, this study still contributes to this literature in two ways. Firstly, it made use of a time-lagged design, over a one-year time span. Therefore, it is one of the first that studies the long-term associations of authentic leadership and followers' well-being (Research Question 3). Secondly, it introduces followers' work-related change perceptions as a potential moderator (Research Question 5). Therefore, this study also recognizes the environment in which an authentic leader is situated and how perceptions of this environment can influence the relationship between authentic leadership and followers' job satisfaction. It seems that authentic leadership is an important leadership style in times of change, since the success of change depends on how the leader understands followers' needs and feelings in these turbulent times (Yukl, 2010). When the leader understands why a certain follower accepts or resists a change at work, s/he can take this into account and communicate more clearly. An authentic leader possesses all the skills to communicate clearly

(i.e. relational transparency, moral perspective and balanced processing). Specifically, it is hypothesized that the positive association between authentic leadership and followers' job satisfaction holds and will be even stronger in times of threatening or challenging merger related changes at work.

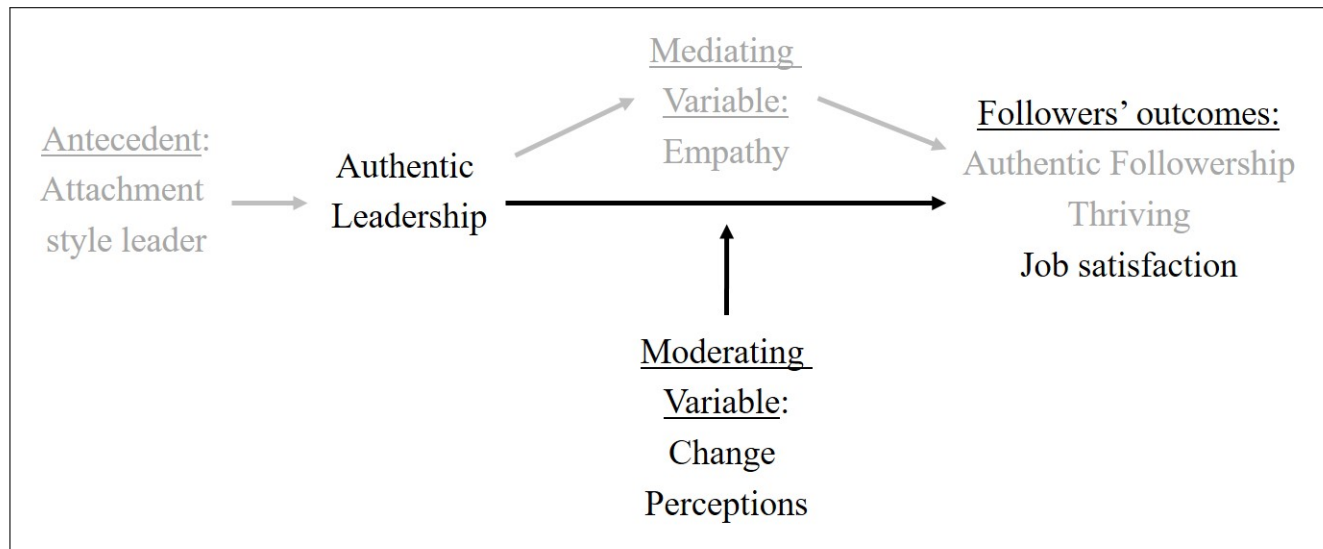


Figure 1.4. Research design of *Chapter 5*.

To summarize, the four empirical studies, presented in *Chapter 2, 3, 4, and 5* attempt to answer the previously formulated research questions. To provide a full overview, Table 1.2 presents each of the four empirical chapters in relation to the studied research questions (marked with an X).

Table 1.2. Overview of empirical chapters and research questions

Research Question	Chapter 2 Study 1	Chapter 3 Study 2	Chapter 4 Study 3	Chapter 5 Study 4
RQ1: Measuring authentic leadership in a Flemish context	X			
RQ2: Antecedents of authentic leadership		X		
RQ3: Outcomes of authentic leadership		X	X	X
RQ4: Mediator in relationship authentic leadership and well-being			X	
RQ5: Moderator in relationship authentic leadership and well-being				X
RQ6: Mediating role of authentic leadership		X		

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2 | The Factorial Validity of the Dutch Authentic Leadership Inventory

The main goals of this study were to investigate the factorial validity and generalizability of the Dutch version of the Authentic Leadership Inventory (ALI). Confirmatory factor analyses in two independent samples of employed followers rating their direct leader (total $n = 252$) supported a hierarchical factor structure with four lower order factors – “self-awareness”, “relational transparency”, “moral perspective”, and “balanced processing” – loading on a single higher-order factor (“authentic leadership”). This 14-item model fitted the data significantly better than competing models (first order factor model and a covarying four factor model). Additionally, using an independent sample, robustness of the findings was established, indicating the generalizability of the 14-item Dutch ALI version.

Introduction

In leadership research, authentic leadership gains increasingly more support (e.g. Avolio & Gardner, 2005; Leroy, Palanski, & Simons, 2012) and is considered as a root construct from which other positive forms of leadership are derived (Avolio & Gardner, 2005). Currently, the definition which is mostly used in the literature is the one from Walumbwa, Avolio, Gardner, Wernsing, and Peterson (2008) and describes authentic leadership “as a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development.” (p. 94 Walumbwa et al., 2008). Four dimensions can be distinguished from this definition: self-awareness, relational transparency, moral perspective and balanced processing (Avolio & Gardner, 2005). The first dimension, self-awareness, refers to leaders’ knowledge about their values, emotions, identity, motives, goals and awareness of own strengths and weaknesses. It is related to the motivation one has to increase the knowledge of these strengths and weaknesses. Moreover, this knowledge of one’s characteristics, strengths and weaknesses is integrated into a coherent multifaceted self (Kernis, 2003). The second dimension, relational transparency, states that leaders present themselves to others as who they really are, without any distortions. The leader values openness and truthfulness in every communication and relationship. Thus, leaders are “real” rather than fake. Because of this, the leader elicits an increase of trust towards others (Kernis, 2003). Next, internalized moral perspective reflects integrated self-regulation (Ryan & Deci, 2003). The leader has his/her own moral standards and values which are reflected in his/her decision making (Avolio & Gardner, 2005). It is an internalized and integrated form of self-regulation. Finally, balanced processing specifies that the leader

makes decisions on all relevant data and not only the positive or confirming information. Thus, s/he does not only consider opinions which fit their opinion (Walumbwa et al., 2008). Because of this, the leader challenges others to critically think “outside the box” which can lead to resourcefulness (Gardner, Avolio, Luthans, May, & Walumbwa, 2005). To summarize, an authentic leader is someone who knows who s/he is, and also communicates this to the outside world.

So far, research on authentic leadership provided evidence of its positive association with a numerous of positive followers’ outcomes including job performance (Wong & Cummings, 2009), job satisfaction (e.g. Cerne, Dimovski, Maric, Penger, & Skerlavaj, 2014), thriving (Mortier, Vlerick, & Clays, 2016), organizational commitment (Jensen & Luthans, 2006), trust in leadership (Clapp-Smith, Vogelgesang, & Avey, 2009), work engagement (Giallonardo, Wong, & Iwasiw, 2010), and work happiness (Jensen & Luthans, 2006). Additionally, it is associated with lower levels of followers’ burnout (Wong & Cummings, 2009), perceived stress (Kiersch & Byrne, 2015), and turnover intentions (Kiersch & Byrne, 2015).

In most of these studies, authentic leadership was assessed by the direct followers. Letting followers’ rate the authenticity of their direct leader covers the idea that authentic leadership is not only focused on leaders’ own authentic development, it also creates an interactive and authentic relationship between leader and follower (Walumbwa et al., 2008). Thus, both leader and follower play their part in authentic leadership development. Followers’ direct leader has an immediate impact on followers’ work context, by creating an (un)healthy work environment (Cummings et al., 2010). Because of this, the way followers perceive their leader plays an important role in followers’ work-related well-being. As a consequence, most authentic leadership studies use followers’ perspective on their leader when focusing on followers’ outcomes (Gardner, Coglisier, Davis, & Dickens, 2011). Therefore, the instrument capturing authentic leadership using followers’ perspective should be reliable

and valid. Walumbwa et al. (2008) developed a measure of authentic leadership assessed by followers: the Authentic Leadership Questionnaire (ALQ).

The ALQ consists of 16 items, measuring the four distinguished authentic leadership dimensions formulated by Avolio and Gardner (2005): self-awareness, relational transparency, balanced processing and internalized moral perspective. Previous studies on the ALQ indicate that authentic leadership can be conceptualized as a hierarchical model with four lower-order latent variables, representing those dimensions, loading on one higher order factor (e.g. Walumbwa et al., 2008).

Although the ALQ is widely used in scientific research, recently it is questioned since it has potential problems and limitations (Neider & Schriesheim, 2011). Content validity relied partially on doctoral students and other academics, which are not representative of the practitioners' field. Also, discriminant validity was weak with related constructs and the structural validity was questioned (Neider & Schriesheim, 2011). Additionally, the ALQ is copyrighted, which can be an obstacle for practitioners.

In response to these problems, Neider and Schriesheim (2011) developed the Authentic Leadership Inventory (ALI). They based their scale on the freely available eight items from Walumbwa and colleagues, and through scale development constructed a total scale of 16 items. However, the authors concluded that two items were ambiguous (the first item of self-awareness and the second item of relational transparency) and therefore, did not include those items in the final scale. Fit indices indicated an equal good fit for two models: the covarying four dimensional model and the second order model (four latent variables loading on a higher order factor). Using the rule of parsimony, the authors concluded the covarying model as superior fit for their data. The ALI showed good content and convergent validity. Additionally, it proved discriminant validity from related constructs such as transformational leadership (Podsakoff, MacKenzie, Moorman, & Fetter, 1990). Also, the ALI is freely

available.

Given the arguments above, we opted to use the ALI in our study, even though the ALQ and the ALI are quite similar in item construction. This similarity is a result of the continuing line of research of the development of the scale: the ALI builds further upon the ALQ, improving the already existing ALQ. It also uses the same theoretical framework and dimensions as the ALQ. This is considered as a strength, because a common problem in leadership is the lack of reliable and valid psychometric measurements (Neider & Schriesheim, 2011), resulting in a plethora of different scales in the field.

Unfortunately, the robustness of the findings of Neider and Schriesheim (2011) is still unknown. Also, the factorial structure of the ALI has not been investigated in other languages. The scale itself has been administered in different countries, such as South-Africa (Stander, de Beer, & Stander, 2015), and Slovenia (Cerne et al., 2014). However, it is unclear whether the scale was translated, or whether factorial validity was tested in the paper. Thus, the factorial structure found by Neider and Schriesheim (2011) has not been replicated in other languages so far. Secondly, and related to this, replication (confirming known knowledge) is often treated as an inferior practice in comparison to testing new theories. However, replication is one of the golden standards of science (Open Science Collaboration, 2015) and should be done so that the conclusions are valid (Wilson, 1952). Yet, findings on the factorial structure of the ALI are trivial: other models were superior (one-factor model; Coxen, van der Vaart, & Stander, 2016), or the superior fitting model was not clearly defined (Rahiminia & Sharifirad, 2015). Thirdly, the factorial validity of the ALI was inspected with students rating Presidential candidates (i.e. Barack Obama and John McCain). However, no studies explicitly inspected its validity when used with actual followers rating their leader at work. This is surprising as leadership and its valid measurement is of strategic importance to most organizations and is studied by many scholars in the work and organizational context.

Clearly, there are still some unknowns considering the factorial validity of the ALI. Given that leadership style and behavior can be perceptual, accurate assessment of leadership style is necessary to gain more insight in its process and development (Neider & Schriesheim, 2011). Therefore, the goal of our study was to take first steps in the matter mentioned above, by studying the factorial validity and reliability of the ALI translated into Dutch, using a real-world sample (i.e. employees). Additionally, we aimed to replicate our findings in an independent yet similar sample of employees, to provide evidence for the robustness of our findings.

Consistent with authentic leadership theory and the empirical results of Neider and Schriesheim (2011), we hypothesized to find support for the four dimensional structure of authentic leadership: Four latent factors assessing “self-awareness”, “relational transparency”, “moral perspective” and “balanced processing”. Specifically, in line with Neider and Schriesheim (2011), we expected that both a covarying four-factor model and a second order model (with the four latent factors loading on a second order latent factor, “authentic leadership”) would be the superior models, compared to a one factor model (with all items loading on a single latent factor).

Second, we investigated the cross-validity of the Dutch ALI by examining whether its factor structure could be replicated in a different sample.

Method

Participants

Two independent equally-sized heterogeneous samples of employed followers were recruited by students at Master-level in the context of a university course. Each student recruited

followers from different organizations in order to prevent overlap in rated leaders between and within both samples.

The first sample was composed of 126 (57.1% women) followers who were recruited from both profit and non-profit companies in the Dutch-speaking part of Belgium. The mean age of the participants was 35.90 years ($SD = 12.83$) and the mean work seniority was 89.76 months ($SD = 89.76$). Overall, the mean age of the direct leaders was 43.31 years ($SD = 9.13$) and the mean seniority in their current job was 115.72 months ($SD = 99.12$).

The second sample consisted of 126 (64.3% women) followers who were also recruited from both profit and non-profit companies in the Dutch-speaking part of Belgium. The mean age of the participants was 34.81 years ($SD = 12.88$) and the mean work seniority was 81.55 months ($SD = 84.17$). Overall, the mean age of the direct leaders was 42.25 years ($SD = 9.45$) and the mean seniority in their current job was 109.63 months ($SD = 95.89$). Table 2.1 displays the independent samples t -test to compare both samples on their similarity on age and their rating of authentic leadership.

Procedure

Instructions towards students were standardized to exclude recruitment bias: Students had to recruit one follower who rated his/her direct leader. Additionally, instructions and questionnaires were equal for all followers in both groups. All followers received an explanation of the purpose of the study using a cover letter. Additionally, informed consent form was provided with all the necessary information about their rights and the researchers' contact details. Their participation was voluntary and anonymous. All participants provided their informed consent. Questionnaires were collected by the students using a sealed envelope to guarantee participants' anonymity. Followers completed the Dutch full 16-item ALI version

Table 2.1. Independent t -test to compare both samples on age and their assessment of authentic leadership and its dimensions.

	Sample 1	Sample 2	t test
Age	$M = 37.88$ $SD = 10.10$	$M = 37.18$ $SD = 10.02$	$t(248) = 0.55$
Authentic leadership	$M = 49.39$ $SD = 7.00$	$M = 49.08$ $SD = 7.94$	$t(242) = 0.32$
- Self-Awareness	$M = 11.14$ $SD = 1.95$	$M = 11.39$ $SD = 2.01$	$t(248) = -0.99$
- Relational Transparency	$M = 12.00$ $SD = 1.96$	$M = 11.92$ $SD = 2.02$	$t(249) = 0.32$
- Moral Perspective	$M = 11.85$ $SD = 1.76$	$M = 11.47$ $SD = 2.18$	$t(237.70) = 1.50^*$
- Balanced Processing	$M = 14.52$ $SD = 2.36$	$M = 14.38$ $SD = 2.98$	$t(246) = 0.40$

Note. *Levene's Test for Equality of variance was significant

and a demographic information questionnaire. The Dutch version of the ALI was obtained by translation and back translation by the last author in collaboration with two experts (an academic leadership researcher and a leadership consultant) following Brislin (1970). Followers were instructed to rate their direct leader using a five-point answer scale with as extreme anchors 'totally agree' versus 'totally disagree'.

Data Analysis

Confirmatory factor analyses (CFA) were performed with lavaan version 0.5-22 (Rosseel, 2012) to determine the fit of the factor structure identified in previous research with the ALI. CFA gives an evaluation of how well the theoretical model fits the original data. We used the Maximum Likelihood estimation with robust (Huber-White) standard errors and scaled test statistic that is (asymptotically) equal to the Yuan-Bentler test statistic (MLR) to fit the data (Marsh, Hau, Balla, & Grayson, 1998). Due to missing data (0.27%), Full

Information Maximum Likelihood (FIML) was applied. This method uses all available data in the data frame. This technique is known for producing unbiased parameter estimates and standard errors (Enders & Bandalos, 2001). Results were considered statistically significant at $p < .05$. Fit indices included the comparative fit index (CFI) (Bentler, 1990), with values greater than .90 indicating acceptable fit; the root mean square error of approximation ($RMSEA$) (Steiger, 1990), for which a cut-off value of .06 or less is recommended, and the standardized root mean square residual ($SRMR$) (Hu & Bentler, 1999), with values smaller than .05 indicating an acceptable fit.

Following the validation process of Neider and Schriesheim (2011), six different measurement models were tested: (1a) a one factor model with all 16 items loading on a latent factor; (2a) a theory implied second order model, with four latent factors, representing the four authentic leadership dimensions, which in turn are loading on one general latent factor representing authentic leadership. Four items were allocated to their respective dimension; and (3a) a covarying four-factor model, in which the four latent variables were allowed to correlate. Again, every dimension was constructed by four items. Next, those three models were tested again using the shortened 14 item version proposed by Neider and Schriesheim (2011) (model 1b, 2b, and 3b). The 14-item version differs from the 16-item version by removing the first item measuring self-awareness and the second item measuring relational transparency.

To compare the nested models X^2 difference test and the Akaike Information Criterion (AIC) (Akaike, 1974) were used to compare the three different measurement models within each item-version. The model with the lowest values for the AIC is considered best when comparing models since it gives the advantage to more parsimonious models (Burnham & Anderson, 2004). However, these tests cannot be used to compare the 16-item versions with the 14-item versions, since these models are not nested. Therefore, we compared the

goodness-of-fit indices between those models. The robustness of the findings across the two samples was tested by assessing measurement invariance using multi-group confirmatory factor analysis (Meredith, 1993). Measurement invariance was tested using the maximum likelihood estimation with robust (Huber-White) standard errors (MLR). Configural, metric, scalar, and full invariance was compared with *CFI*, *RMSEA* and *AIC*.

Results

The mean scores and standard deviations for the full 16-item version of the Dutch ALI are shown in Table 2.2.

Table 2.2. Descriptive statistics for the 16 Dutch ALI items in Sample 1 and Sample 2.

ALI item	Sample 1 <i>M</i> (<i>SD</i>)	Sample 2 <i>M</i> (<i>SD</i>)
<u>Factor 1: Self-Awareness</u>		
SA1. Mijn leidinggevende vraagt om feedback om zijn/haar omgang met anderen te verbeteren* <i>"My leader solicits feedback for improving his/her deadlines with others"*</i>	3.06 (1.16)	3.20 (1.17)
SA2. Mijn leidinggevende kan de manier waarop anderen zijn/haar bekwaamheden zien accuraat beschrijven <i>"My leader describes accurately the way that others view his/her abilities"</i>	3.64 (0.80)	3.71 (0.79)
SA3. Mijn leidinggevende toont dat hij/zij de eigen sterkten en zwakheden begrijpt. <i>"My leader shows that s/he understands his/her strengths and weaknesses"</i>	3.73 (0.81)	3.94 (0.79)
SA4. Mijn leidinggevende is zich duidelijk bewust van de impact die hij/zij heeft op anderen. <i>"My leader is clearly aware of the impact s/he has on others"</i>	3.78 (0.85)	3.80 (0.84)
<u>Factor 2: Relational Transparency</u>		
RT1. Mijn leidinggevende geeft duidelijk aan wat hij/zij bedoelt <i>"My leader clearly states what /he means"</i>	4.12 (0.79)	4.04 (0.86)
RT2. Mijn leidinggevende geeft fouten toe als deze zich voordoen* <i>"My leader admits mistakes when they occur"*</i>	3.98 (0.85)	4.00 (0.90)

Table 2.2. Descriptive statistics for the 16 Dutch ALI items in Sample 1 and Sample 2. (continued)

ALI item	Sample 1 <i>M</i> (<i>SD</i>)	Sample 2 <i>M</i> (<i>SD</i>)
RT3. Mijn leidinggevende deelt openlijk informatie met anderen <i>"My leader openly shares information with others"</i>	3.90 (0.89)	3.91 (0.97)
RT4. Mijn leidinggevende drukt zijn/haar ideeën en gedachten duidelijk uit aan anderen <i>"My leader expresses his/her ideas and thoughts clearly to others"</i>	3.98 (0.77)	3.94 (0.86)
Factor 3: Moral Perspective		
MP1. De acties van mijn leidinggevende zijn consistent met zijn/haar overtuigingen <i>"My leader shows consistency between his/her beliefs and actions"</i>	4.03 (0.79)	3.92 (0.93)
MP2. Mijn leidinggevende gebruikt zijn/haar diepste overtuigingen bij het nemen van beslissingen <i>"My leader uses his/her core beliefs to make decisions"</i>	3.97 (0.69)	3.89 (0.82)
MP3. Mijn leidinggevende weerstaat aan de druk van anderen op hem/haar om dingen te doen die tegengesteld zijn aan zijn/haar overtuigingen <i>"My leader resists pressures on him/her to do things contrary to his/her belief"</i>	3.86 (0.84)	3.58 (1.03)
MP4. Mijn leidinggevende laat zich in zijn/haar acties leiden door zijn/haar persoonlijke morele standaarden <i>"My leader is guided in his/her actions by internal moral perspectives"</i>	3.56 (0.81)	3.56 (0.85)
Factor 4: Balanced Processing		
BP1. Mijn leidinggevende vraagt naar ideeën die zijn/haar diepste overtuigingen uitdagen <i>"My leader asks for ideas that challenge his/her core beliefs"</i>	3.24 (0.98)	3.25 (0.92)
BP2. Mijn leidinggevende luistert zorgvuldig naar verschillende perspectieven vooraleer een beslissing te nemen <i>"My leader carefully listens to alternative perspectives before reaching a conclusion"</i>	4.00 (0.81)	3.85 (0.95)
BP3. Mijn leidinggevende analyseert objectief relevante data vooraleer een beslissing te nemen. <i>"My leader objectively analyzes relevant data before making decision"</i>	3.90 (0.83)	3.90 (0.86)
BP4. Mijn leidinggevende moedigt anderen aan om tegengestelde gezichtspunten te verwoorden. <i>"My leader encourages others to voice opposing points of view"</i>	3.43 (0.83)	3.43 (0.91)

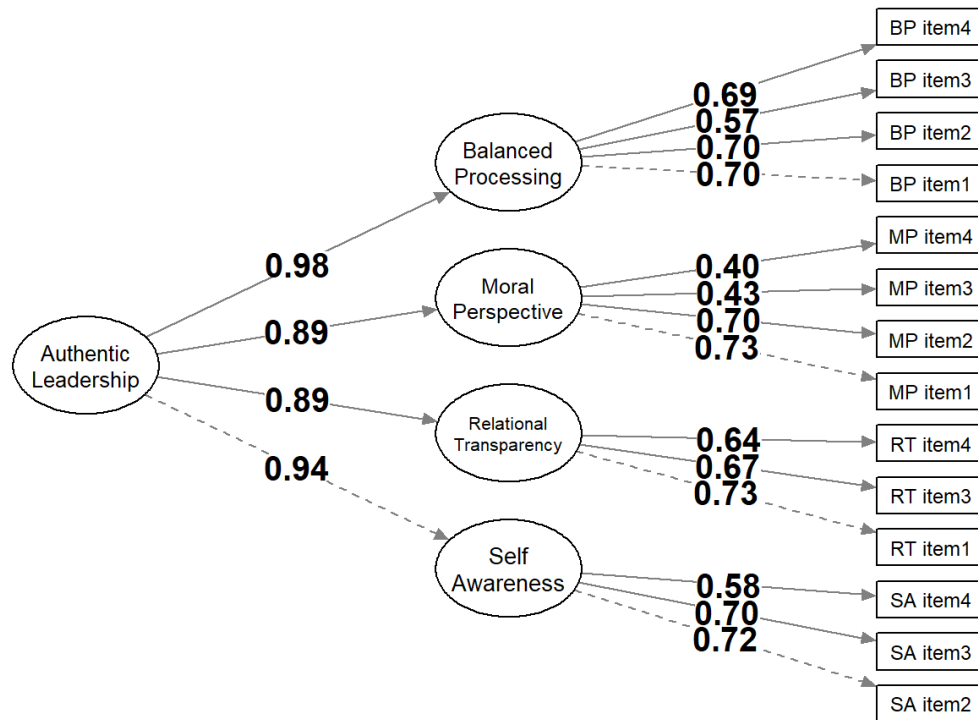
Note. Items SA1 and RT2 were subsequently deleted from the final scale and shown with an asterisk. Sample 1: $N = 126$; Sample 2: $N = 126$

Factor Analyses

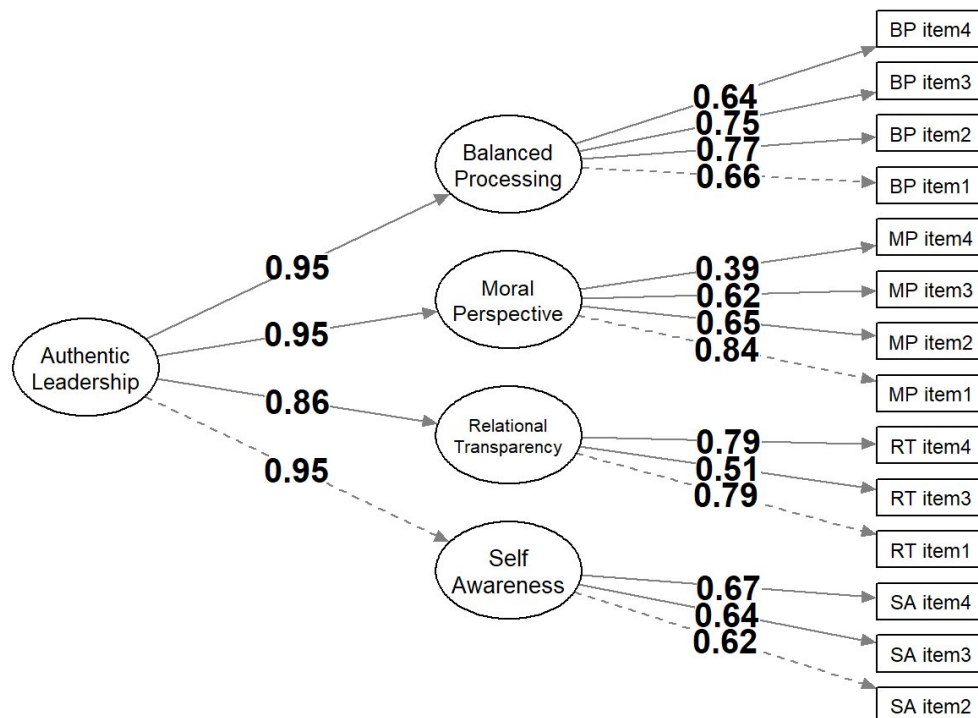
The results of the CFA indicated that all fit indices for the various models were acceptable for both samples (see Table 2.3). However, model 3 (covarying model) yielded a negative covariance matrix of the latent variables and high correlations between the latent variables (range r : 0.75 - 0.98) for both item versions. This can be caused by collinearity among the observed variables (Wothke, 1993), therefore, this model was considered as a misspecified model for the data. Additionally, model 2 (the higher order model) outperformed model 1 in both item versions (Sample 1 - 16 item: $\Delta X^2(4) = 10.16$, $p < 0.05$; 14 item: $\Delta X^2(4) = 11.43$, $p < 0.05$; Sample 2 - 16 item: $\Delta X^2(4) = 11.51$, $p < 0.05$; 14 item: $\Delta X^2(4) = 19.89$, $p < 0.001$). Other fit indices seem to support this conclusion with a higher value for CFI, and lower *RMSEA*, *SRMR* and *AIC* values. When applying the rule of parsimony, Model 2b (14-item version second order model) provided the best solution with a good fit for the data in both samples. The completely standardized factor loadings of the Dutch ALI items in model 2b were all significantly related to their respective latent variables and greater than 0.30 (salient loading; Garsuch, 1983). Figure 2.1 displays the path model with factor loadings of the final 14-item Dutch ALI version for both samples.

Reliability

The 14-item Dutch ALI version's reliability was assessed using Cronbach's alpha. In sample 1, the alphas were .71, .72, .64, and .76 for self-awareness, relational transparency, moral perspective and balanced processing respectively. The alpha of the total scale for sample 1 was .89. In sample 2, the alphas were .75, .71, .72, and .82 for self-awareness, relational transparency, moral perspective and balanced processing respectively. The alpha of the total scale for sample 2 was .90. These results suggested an acceptable reliability of the 14-item Dutch ALI version.



(a) Sample 1.



(b) Sample 2.

Figure 2.1. Path diagrams with standardized factor loadings of the 14 Dutch ALI version in both independent samples of followers for Model 2b. (a) = Sample 1, (b) = Sample 2, SA = Self-Awareness, RT = Relational Transparency, MP = Moral Perspective, BP = Balanced Processing

Table 2.3. Goodness-of-Fit Indices for the Nine Measurement Models Tested in Sample 1 and Sample 2

Model	Sample 1						Sample 2					
	$\chi^2(df)$	<i>CFI</i>	<i>RMSEA</i>	<i>SRMR</i>	<i>AIC</i>		$\chi^2(df)$	<i>CFI</i>	<i>RMSEA</i>	<i>SRMR</i>	<i>AIC</i>	
Model 1a: 16 items, one factor	167.22 (104)	0.90	0.07	0.06	4434.51		160.17 (104)	0.92	0.07	0.06	4502.43	
Model 2a: 16 items, one higher order factor	156.08 (100)	0.91	0.07	0.06	4428.28		146.59 (100)	0.93	0.06	0.06	4492.04	
Model 3a: 16 items, four factors covarying*	140.29 (98)	0.93	0.06	0.06	4415.96		131.28 (96)	0.95	0.05	0.05	4526.63	
Model 1b: 14 items, one factor	116.90 (77)	0.90	0.06	0.06	3798.20		116.14 (77)	0.93	0.06	0.06	3905.16	
Model 2b: 14 items, one higher order factor	104.70 (73)	0.94	0.06	0.05	3791.29		92.66 (73)	0.97	0.05	0.06	3883.10	
Model 3b: 14 items, four factors covarying*	89.91 (71)	0.96	0.05	0.05	3779.02		94.65 (71)	0.96	0.05	0.06	3919.92	

Note. Sample 1: $N = 126$; Sample 2: $N = 126$. * The latent variables of the models with an asterisk are highly correlated.

Measurement Invariance

To investigate the cross-validity of the 14-item Dutch ALI across both samples measurement invariance was tested using a multiple group analysis. Four models were constructed (see Table 2.4). Model A tested whether the proposed factor structure (second order measurement model measured by the 14 retained items) was equal across the two samples. Since fit indices demonstrated that the second order model proved to be the best fit in both independent groups, we expected that configural invariance would be supported. As can be seen in Table 2.4, Model A provided excellent fits to the data, indicating that the factor structure measured by the 14-item Dutch ALI version is equal across both samples of followers.

As configural invariance was supported, the factor pattern coefficients were constrained to be equal (= metric invariance). Model B proved good fit indices. Additionally, X^2 difference tests showed no significant difference between model A and model B ($\Delta X^2(12) = 14.90$, $p > 0.10$) indicating equal loadings between the two groups (see Table 2.4).

Next, intercepts were constrained to be equal across groups (= scalar invariance). Model C again indicated good fit indices. Additionally, X^2 difference tests showed no significant difference between model A and model B ($\Delta X^2(8) = 10.07$, $p > 0.10$). In addition to this, Model D tested whether the levels of underlying items (intercepts) were also equal across the two groups (= full invariance; van de Schoot, Lugtig, & Hox, 2012). Again, this was supported by the fit indices and chi square difference tests ($\Delta X^2(5) = 10.74$, $p > 0.05$). This indicated that the scores on authentic leadership can be meaningfully compared across groups. Thus, measurement invariance of the 14-item Dutch ALI version was supported across groups.

Table 2.4. Test of Measurement Invariance across Two Independent Samples of Followers

	X^2	<i>CFI</i>	<i>RMSEA</i>	<i>AIC</i>
Model A: configural invariance (equal factor structure)	235.38 (146)	0.94	0.06	7561.9
Model B: metric invariance (equal factor structure and loadings)	255.09 (159)	0.94	0.06	7555.6
Model C: scalar invariance (equal factor structure, loadings and intercepts)	266.33 (168)	0.94	0.06	7448.8
Model D: full invariance (equal factor structure loadings, intercepts and means)	274.15 [†] (173)	0.93	0.06	7546.7

Note. [†]: $p < .1$. $N = 252$

Discussion

The first goal of the present study was to gain more support for the factorial validity and reliability of the ALI, in a Dutch-speaking employee sample. In line with the results of the original scale (Neider & Schriesheim, 2011), we hypothesized to find an equal good fit for both the covarying model (Model 3) as the second order model (Model 2). However, our results indicate that Authentic Leadership in Flemish leaders as measured by the ALI from the perspective of their followers can be best conceptualized as a second order model (Model 2). This model represents four lower-order factors (Self-Awareness, Relational Transparency, Moral Perspective, and Balanced Processing) loading on a second order factor (Authentic Leadership). This is in line with the Authentic Leadership Theory (Avolio & Gardner, 2005).

These results partially supported our hypothesis and the results reported by Neider and Schriesheim (2011). They found an equal good fit to their data with both the hierarchical factor structure and the covarying model. They concluded, based on parsimony, that the covarying model best conceptualized the English ALI. However, in our data, the covarying model yielded strong correlations among the four latent variables, indicating a higher second

order latent variable. This was also the case in the study of Stander et al. (2015) who found a negative covariance matrix for the covarying model. Here, they found support for the one-factor model. Summarizing the results of those three studies (the present study, Neider & Schriesheim, 2011; Stander et al., 2015), it seems there is mixed support for an overarching concept of authentic leadership (present study; Stander et al., 2015), and mixed support for the dimensional nature of authentic leadership as described by the theory of Avolio and Gardner (2005) (present study; Neider & Schriesheim, 2011). It is not clear whether this is due to translation effects, since the study of Stander et al. (2015) was conducted in South-Africa and did not report a translation, or due to cultural effects (Hofstede, 2001). Indeed, even though inauthenticity seems to be universal across cultures, authentic experiences differ across cultures (Slabu, Lenton, Sedikides, & Bruder, 2014) and can be a result of a different meaning of authenticity across cultures. Therefore, future studies should investigate both the factorial validity of the ALI and the concept of authenticity further and explore how cultural variables can influence this.

The results of the reliability analysis were also consistent with the original scale ($\geq .70$ Neider & Schriesheim, 2011), except for the reliability of the moral perspective dimension in Sample 1. This was not the case for Sample 2. However, although the factor indices are reasonable and the factor structure is similar, it seems that the items were not as equal consistent in Sample 1 as in Sample 2. Since both samples were equal in terms of demographics and their assessment of authentic leadership, it is unclear why the reliability of the moral perspective subscale was somewhat lower in Sample 1.

Secondly, testing the robustness of our findings in the Flemish context, we found measurement invariance for the second order model across two independent samples. Our results indicate the generalizability of our findings in the Flemish context, since the findings in Sample 2 were in line with the findings of Sample 1. Furthermore, measurement invariance was

established between the two samples, indicating equal factor structure, loadings, intercepts, and means. Therefore, it seems that in the cultural setting of the present study (Dutch, Western country), the findings are stable and similar in a heterogeneous sample of employees. Thus, in our setting hypotheses can be tested on the overarching structure (authentic leadership) and the dimensional level (self-awareness, relational transparency, moral perspective, and balanced processing) when using a Dutch version of the ALI.

Limitations and Further Research

Our results were derived from a multi-sample study and could be replicated across both samples and filled in a clear research void in current scientific literature concerning the ALI. Nevertheless, some research limitations have to be mentioned. A first limitation of our study is the use of a single person's viewpoint. Since 360-degree feedback is often used in management (e.g. Brett & Atwater, 2001), validity and reliability of the (Dutch) ALI, rated by the leaders themselves should also be investigated. Therefore, we encourage future studies to look into this matter more deeply.

Secondly, although we focused in this paper on the factorial validity and measurement invariance of the Dutch ALI version, future research is needed to study other types of validity regarding the ALI. For instance, one might explore its predictive validity towards work outcomes such as job performance, and its incremental validity beyond other leadership styles such as ethical leadership.

Notwithstanding these limitations, the results of this study indicate that the 14-item Dutch ALI version is a sufficiently reliable and factorial valid instrument to be recommended in further scientific research and likely also for practical purposes, such as for the evaluation of leadership training programs.

Conclusion

The present study showed further support for the factorial validity of the Authentic Leadership Inventory. It revealed that a 14-item Dutch version of the Authentic Leadership Inventory is a factorial valid instrument for measuring authentic leadership from followers' perspective among Dutch speaking Belgian employees. The Dutch ALI version allows measuring authentic leadership as a second order latent variable on the one hand and to measure the four dimensions which are distinguished in Avolio and Gardner (2005) authentic leadership theory on the other hand. Next, its reliability is acceptable. Moreover, we found that this version was invariant across independent samples of followers. This implies that it seems acceptable to use ALI and the authentic leadership theory (Avolio & Gardner, 2005) as a measurement tool and conceptual framework in present doctoral research.

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3 | Unraveling authentic followership: the role of authentic leadership and leaders' avoidant attachment style ¹

Even though organizational research has increasingly stressed the importance of authenticity in both leaders (i.e. authentic leadership) and followers (i.e. authentic followership), research on how authenticity can be developed or maintained is still scarce. This study tried to address this by studying the relation between leaders' attachment orientation and authentic leadership and followership. A sample of 226 leader-follower dyads was recruited from various organizations. Results revealed that leaders' avoidant attachment style is only indirectly negatively related to authentic followership. This indirect negative relationship was, as hypothesized, mediated by authentic leadership. Altogether, our study is one of the first in the domain that empirically demonstrated the link between attachment styles and authenticity at work.

¹ A previous version of this study was presented at the Conference of the European Association of Work and Organization Psychology: Mortier, A. V., Stremersch, J., & Vlerick, P. (2017). *Authenticity at work: the role of leaders' attachment style*. Presented at the 18th Conference of the European Association of Work and Organizational Psychology, Dublin, Ireland

Introduction

In leadership research, authentic leadership gains increasingly more support (e.g. Avolio & Gardner, 2005; Leroy, Palanski, & Simons, 2012). Authentic leaders remain “true to themselves” and evidence for their importance has been demonstrated both in the academic field (e.g. Avolio, Gardner, Walumbwa, Luthans, & May, 2004) and the practitioner’s field (e.g. George, Sims, McLean, & Mayer, 2007; Goffee & Jones, 2005). Previous studies found support that authentic leadership is associated with positive outcomes for followers, such as feelings of empowerment (Leroy et al., 2012), thriving (Mortier, Vlerick, & Clays, 2016), job satisfaction (Cerne, Dimovski, Maric, Penger, & Skerlavaj, 2013), and organizational commitment (Jensen & Luthans, 2006).

Up until recently, the majority of the authenticity studies investigated solely leaders’ authenticity. However, to answer the call of scholars to also focus on followers’ authenticity (Avolio & Reichard, 2008), authentic leadership theory has dismissed the dominant view focusing on leader’s perspective only and also proposed authentic followership (Avolio et al., 2004). Since it is related to several positive outcomes, authentic followership should be stimulated (e.g. de Zilwa, 2016; Griffin, Neal, & Parker, 2007; Luthans, Avey, Avolio, & Peterson, 2010).

Despite the growing evidence in favor for the positive outcomes of authentic followership, limited empirical studies have focused on the development and antecedents of authentic followership and leadership (Gardner, Avolio, Luthans, May, & Walumbwa, 2005). Our study tried to fill this void by investigating potential antecedents of both concepts. In line with the theoretical framework of Gardner et al. (2005), we propose that the relationship with an authentic leader and how this relationship is determined, is of vital importance to develop authentic followers.

This leader-follower relationship is dependent on both parties. On the one hand, authentic followership can help to strengthen the relationship between leader and follower, since it is built upon trust, respect, and honest communication (de Zilwa, 2016). On the other hand, the leader-follower relationship is dependent on leadership style and leaders' working model of relationships (Fraley, 2007). In the present study, we focus on the latter part. Leaders should be sensitive and responsive to the emotional needs of their followers and should support their self-growth (Davidovitz, Mikulincer, Shaver, Izsak, & Popper, 2007) in order for followers to develop themselves.

The way leaders act and have certain affective representations of the leader-follower relationship impact the relationship with their followers. Naturally, every relationship has an affective component (Popper & Mayseless, 2003), which influences the actual relationship. A theoretical framework that is very influential for close relationships is attachment theory (Gillath, Sesko, Shaver, & Chun, 2010). Attachment representations are formed by earlier experiences and relationships. Based upon these experiences, working models are created which have an influence on future relationships (Fraley, 2007). These models are generalizable over different relationships (Collins & Read, 1994; Fraley, 2007; Overall, Fletcher, & Friesen, 2003). Applying this to leadership, we can state that previous interpersonal experiences of the leader influence the working model of the relationship with his/her followers. The type of working model (i.e. attachment style) has an impact on how a leader behaves and how his/her followers perceive their direct leader.

Not only can attachment theory be applied on leader-follower relationships, it is also important for authenticity (Gillath et al., 2010). In order to behave authentically, one needs to have an accurate self-perception (Kernis & Goldman, 2006) and personal strength (Gillath et al., 2010). An important source for both self-perception and personal strength are previous interpersonal experiences (Fraley, 2007; Mikulincer & Shaver, 2007; Shaver, Lavy,

Saron, & Mikulincer, 2007). Therefore, attachment theory can offer interesting insight into authenticity and the development of the relationship between authentic leaders and followers (Luthans & Avolio, 2003).

Hinojosa, Davis McCauley, Randolph-Seng, and Gardner (2014) formulated the theoretical proposition that leaders' attachment style and authentic leadership are related to each other; yet empirical studies on this topic are scarce. Additionally, there is evidence in favor for the positive association between secure attachment and authentic leadership and the negative association between ambivalent attachment and authenticity (Hinojosa et al., 2014; Kim, 2005). However, no studies have investigated the role of other attachment styles on authentic leadership and/or authentic followership. Therefore, the current study focuses on one particular attachment style, namely avoidant attachment. By examining whether avoidant attachment is negatively related to authentic leadership and authentic followership, this study can serve as a first step in investigating how leaders' attachment style, authentic leadership and authentic followership are related to each other.

The goal of our study was twofold. Firstly, leaders with an avoidant attachment style are more inclined to have negative perceptions of relations (Davidovitz et al., 2007). As they are likely less open towards other people, authentic followership might be lower. Therefore, this study investigated whether leaders' avoidant attachment style was negatively related to authentic followership. Secondly, it seems plausible that leaders with an avoidant attachment style will behave in a less authentic way. In addition to this, authentic leadership theory states that authentic leaders are able to stimulate authenticity in their followers (Gardner et al., 2005), and that inauthentic leaders will be less supportive for the authenticity in their followers. In other words, we suggest that authentic leadership mediates the relationship between leaders' avoidant attachment style and authentic followership (see Figure 3.1).

This study contributes to the literature in two ways. Firstly, we answer to the call in

the leadership literature to focus more on followers (Hernandez, Eberly, Avolio, & Johnson, 2011) and with regard to authentic leadership literature in particular (e.g. Avolio & Gardner, 2005; Gardner, Cogliser, Davis, & Dickens, 2011). Indeed, leaders are not leaders without their followers. With our study, we focus on followership and how this can be developed or maintained. However, our study is still focused on the leader as well, since leadership style plays an important role in followers' well-being (Gardner et al., 2005; Ilies, Morgeson, & Nahrgang, 2005).

Secondly, we answer to the call of authentic leadership literature to study the antecedents of this leadership style. As most studies investigated its outcomes (e.g. perceived leader effectiveness, leader and follower well-being - Moriano, Molero, & Lévy-Mangin, 2011; Gardner et al., 2005; Ilies et al., 2005), the current study empirically investigated the relationship between leaders' avoidant attachment style, authentic leadership and authentic followership. Our study is one of the first to atone authentic leadership literature with the attachment literature.



Figure 3.1. Representation of the research model: Avoidant attachment style has an indirect effect on authentic followership through authentic leadership.

Authentic Leadership and Authentic Followership

Building upon the authenticity theory of Kernis (2003), authentic leadership and followership are comprised of four dimensions: self-awareness, relational transparency, balanced processing and internal moral perspective (Avolio, 2005; Leroy, Anseel, Gardner, & Sels, 2015). The first dimension, self-awareness, refers to having knowledge about one's values, emotions and

goals (Rodgers, 2014). It also reflects on knowing both strengths and weaknesses. More in particular, one will not deny or neglect one's weaknesses. The second dimension, relational transparency, refers to presenting one's true self to others, without any distortions. This dimension is also related to open and transparent communication. Thirdly, internalized moral perspective refers to integrated self-regulation (Ryan & Deci, 2003). The decisions one makes reflect the own moral standards and values (Avolio & Gardner, 2005). Finally, the fourth dimension, balanced processing, reflects that decisions are made on all relevant data, and not only on data that fits one's perspective. Authentic leaders and followers value different perspectives that challenge common knowledge (Gardner et al., 2005). To summarize, authentic leaders and followers are honest people who are true to themselves and their beliefs. They establish genuine connections with others and stimulate trust (Dirks & Ferrin, 2002) because they do not have an "us-versus-them" mentality (Rodgers, 2014).

Authentic followers develop greater clarity about their values, identity and emotions and thus move towards internalized regulation, balanced processing, relational transparency with the leader and colleagues, and authentic behavior (Gardner et al., 2005). They feel safe to express their opinions and are proactive (Griffin et al., 2007), because they feel that their work reflects their selves and making mistakes does not result in punishments (Avolio & Reichard, 2008). Moreover, authentic followers are more engaged and satisfied with (Harris & Kacmar, 2002) and engaged to (Peterson, 2010) their job, and have higher levels of work role performance (Leroy et al., 2012). This improves both their work performance and productivity (Luthans et al., 2010).

Also, the self-awareness of authentic followers creates productive relationships, which means that they collaborate more effectively with their colleagues and leader: authentic followers model positive behaviors and enhance the strengths of their colleagues (Rodgers, 2014). Because of this, they create a positive work environment, which impacts all fellow employ-

ees and increases team performance. Consequently, they contribute to the organization's effectiveness and growth (de Zilwa, 2016).

To summarize, authentic followership is beneficial for followers, leaders, and organizations. Therefore, it is valuable to investigate how authentic followership and authentic leadership can be developed.

Leader's Insecure-Avoidant Attachment Style and Authentic Followership

Attachment theory states that individuals have internal working models that are influenced by both early developmental experiences and relationships later in life. These models are internal working models that guide how people interact with close others. These interactions can fall into three different attachment styles: secure, insecure-ambivalent, and insecure-avoidant (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969, 1982). The attachment styles that are established in the early lifespan can have an impact on the future relationships such as with friends, partners, and leaders (Davidovitz et al., 2007; Fraley, 2007; Keller, 2003; Popper, 2002; Popper & Mayseless, 2003). However, this early attachment style is not deterministic and is open to change across the lifespan and within other relationships (Fraley, 2007).

The present study focuses solely on the attachment style of the leader, because it can be associated with authentic followership development (e.g. Gardner et al., 2005; Hinojosa et al., 2014). The rationale of attachment as an antecedent of followership outcomes is based on the belief that leaders should be responsive towards the need of their followers (Davidovitz et al., 2007). More specifically, leaders should be a secure base and safe haven (Ainsworth, 1991; Bowlby, 1969, 1982; Fraley & Shaver, 2000) and should help followers in their personal

growth and self-exploration, and to develop oneself (Mayseless & Popper, 2007). This then contributes to authentic followership (Gardner et al., 2005). Thus, attachment styles are an evident way to explain the interpersonal dynamics of leaders and followers in the workplace (Harms, 2011). Attachment theory is, therefore, a valuable perspective to investigate leader-follower relationships, since the direct leader is in close proximity of his/her followers (Davidovitz et al., 2007).

On the one hand, it has been proposed that leaders with a safe attachment style support followers' personal growth and development (e.g. Davidovitz et al., 2007). Those leaders create a sense of security, because they have positive mental representations of themselves and others. Because they are positive about themselves, they are not hindered by personal distress and can thus fully focus on others (Mikulincer, Shaver, Gillath, & Nitzberg, 2005). Secure attachment is linked to leader's effectiveness (e.g. Englund, Levy, Hyson, & Sroufe, 2000; Mikulincer & Florian, 1995). Furthermore, (Hinojosa et al., 2014) have theoretically argued that leaders' secure attachment is associated with authentic followership.

On the other hand, leaders with an insecure attachment style (i.e. avoidant or ambivalent) are less able to respond towards their followers' needs (Davidovitz et al., 2007). As a consequence, this develops insecurity in their followers. This results in lower self-efficacy, performance and personal growth (Davidovitz et al., 2007; Mayseless, 2010). Hence leaders with an insecure attachment style will develop a dysfunctional and conflicted relationship with their followers (Hinojosa et al., 2014).

In the present study, we will focus on one particular insecure attachment style, namely avoidant attachment. The rationale for this is that even though securely attached leaders have positive benefits for themselves, their followers and their organization, there are still leaders with other attachment styles, such as an avoidant style (Mayseless, 2010). Therefore, it is important to investigate the effects of such an attachment style on their followers.

Moreover, the percentage of people with an avoidant attachment style has increased in recent years (Johnston, 2014).

Avoidant leaders are more likely to concentrate on the task at hand, and neglect followers' emotional needs. As a consequence, followers will not have the emotional support to develop themselves: they will feel that the completed task is of the highest importance and will be afraid to make mistakes. This discourages self-growth because making mistakes help people learn (Holroyd & Coles, 2002; Thorndike, 1970). Additionally, it creates a non-personal and hostile environment where followers are not allowed to self-explore. Moreover, if followers feel that their leader does not provide a safe base, they will not engage in self-reflection and will not gain self-awareness. Therefore, their authenticity will not be enhanced (Hinojosa et al., 2014).

Leaders' avoidant attachment style is also related to higher levels of personalized leadership (e.g. self-interest and self-importance) (Davidovitz et al., 2007) and is less focused on others (Popper, 2002). Avoidant leaders want to demonstrate their superiority and are authoritarian (Johnston, 2000). They put their self-interests before the needs of others (Popper, 2002). Thus, they neglect the emotional aspects of leadership (Davidovitz et al., 2007). They have negative perceptions of others (Bartholomew & Horowitz, 1991) and are suspicious about others, believing they are not trustworthy. As a consequence, they avoid close relationships (Ainsworth, 1991; Mikulincer, 1998). They rely only on themselves (Mayseless, 2010) so they create an emotional distance between themselves and their followers (Hazan & Shaver, 1987). They are less empathic and do not have an accurate view on their followers' needs. Avoidant leaders do not give guidance or motivate their followers. Consequently, followers do not feel supported and their basic human needs for autonomy, competence and relatedness will be less fulfilled. Eventually, leaders with an avoidant attachment style create a negative work environment for their followers which suppresses followers

from enacting authentic followership (de Zilwa, 2016; Knoll & van Dick, 2013).

To summarize, leaders' avoidant attachment style has a negative impact on followers' well-being and performance (Davidovitz et al., 2007). Thus, leaders' avoidant attachment style can discourage followers to develop themselves. More specifically, it can potentially suppress authentic followership (Hinojosa et al., 2014). Therefore, we state our first hypothesis:

Hypothesis 1: Insecure-avoidant attachment style of the leader is negatively related to authentic followership.

Authentic Leadership as Mediator

Evidence points towards the usefulness of using attachment theory as a framework in leadership research (e.g. Popper & Mayseless, 2003). However, there are still many implications left unexplored in linking attachment theory with the leadership domain (Harms, 2011). Specifically, authentic leadership is one particular leadership style that could benefit from an attachment style perspective (Hinojosa et al., 2014). To illustrate, previous studies have shown evidence in favor of linking avoidant attachment styles to authenticity (e.g. Brunnell et al., 2010; Gillath et al., 2010). Mainly, avoidant attachment style is negatively related to authenticity, because avoidance is associated to negative representations of others. Because of this, they lack the expression of their vulnerabilities and emotions (Neff & Harter, 2002), which discourages authenticity (Gillath et al., 2010; Gouveia, Schulz, & Costa, 2016). Also, a study by Lemay and Clark (2008) provided evidence in couples that a partner with an avoidant attachment style is perceived as less authentic by their spouse. The link between authenticity and avoidant attachment can also be argued from the theory of self-determination (La Guardia, Ryan, Couchman, & Deci, 2000). Individuals try to find a fit between their

personal needs and environmental support. However, when this fit is not optimal or inconsistent (i.e. avoidant attachment), this leads to a conditional and heteronomous self-worth (Kim, 2005).

In addition to the empirical support that links avoidant attachment style with authenticity, which is inherent to authentic leadership, there is also theoretical evidence in linking avoidant attachment style with authentic leadership style (Hinojosa et al., 2014). Gardner et al. (2005) claimed that in order to be an authentic leader, one has to “know oneself” and “be true to oneself” (Harris & Kacmar, 2002). Trigger events and personal history of leaders’ influence leader’s self-awareness and self-perception. These trigger events are positive or negative experiences that shape a person’s development in terms of self-reflection and thus self-awareness. These experiences are also derived from the relationships with others upon which one’s attachment styles is grounded, as this is developed by these relationships (Fraley, 2007). If the leader has an avoidant attachment style, they do not trust others. There is less relational transparency towards the follower, implying that those leaders will not be seen as authentic (Hinojosa et al., 2014).

Even though the theoretical linkage between leaders’ avoidant attachment style and authentic leadership has been argued, empirical evidence regarding this association is still lacking. Therefore, this study proposes that avoidant attachment style is negatively related to authentic leadership.

Additionally, our study argues that authentic leadership mediates the relationship between leaders’ avoidant attachment style and authentic followership. As the previous section mentioned how leaders’ avoidant attachment style is related to authenticity and authentic leadership, there is also evidence that authentic leadership is associated positively with authentic followership, and thus can explain the relationship between avoidant attachment style and authentic followership.

Because authentic leaders remain true to themselves, they create an environment in which followers can develop their autonomy, relatedness, and competence (Leroy et al., 2015). Followers are less restrained in choosing their tasks and when to do them. They are more intrinsically motivated to complete their tasks and feel competent in doing so (Ryan & Deci, 2000). This leads to an increase in authenticity, since followers are staying true to themselves and will ascribe their decisions as decisions they have made themselves (Leroy et al., 2015). Thus, authentic leaders have the capacity to foster authentic relationships with their followers by being open, establishing trust and transparency, and focusing on follower development.

Indeed, authentic leaders stimulate authentic followers' development (e.g. Gardner et al., 2005; Leroy et al., 2015; Shamir & Eilam, 2005). The authentic leader largely heightens and shapes followers' self-awareness and self-regulation by being a role model and actively encouraging followers' self-development (Gardner et al., 2005). Authentic leaders "walk their talk" and demonstrate the importance of transparency, openness, fairness, and trust (Gardner et al., 2005). They establish an open relationship with their followers in which both are aware of who they are, encouraging each other's authenticity (Rodgers, 2014). As a consequence, those followers experience more self-efficacy, which benefits authenticity (Eid, Mearns, Larsson, Laberg, & Johnsen, 2012; Luthans & Avolio, 2003). Correspondingly, authentic leaders have and/or develop authentic followers (Gardner et al., 2005).

Summarized, we argue that the negative association between leaders' avoidant attachment style and authentic followership (hypothesis 1) might be explained by leaders' behaving in a less authentic manner, implying that authentic leadership mediates the negative relationship between leaders' avoidant attachment style and authentic followership. We state our second hypothesis:

Hypothesis 2: The relationship between leader's insecure-avoidant attachment style and

authentic followership is mediated by authentic leadership.

Method

Participants and procedure

Participants were recruited from different organizations across Flanders, Belgium. Using the social network of the second author of this paper, leaders were approached both online and offline to participate in the study. Leaders who agreed to participate in the study were instructed to ask at least one randomly chosen follower to fill in the followers' questionnaire. This subordinate should be someone with whom they interacted and collaborated often at work. Thus, all leaders received two types of questionnaires: one they had to fill out themselves (i.e. leaders' questionnaire) and the remaining ones had to be filled out by at least one follower (i.e. followers' questionnaire). Both leaders and followers received a unique identification number so that they could be linked to each other. This identification number could be either entered in the online questionnaire, or was printed on the paper version.

All participants received a cover letter which explained the goal of the study and the use of the identification number. Their anonymity was granted and they had to provide their consent to participate in the study. Participation was completely voluntary and confidentiality was guaranteed.

The questionnaire of the leader assessed their attachment style and several demographical variables. Followers' questionnaire assessed authentic followership and their point of view of their leaders' authentic leadership style. Both paper and online questionnaires were returned to the second author of this study.

A total of 227 completed questionnaires were collected. One deviant dyad was deleted,

resulting in 226 dyads of leader-followers. In total, 42 dyads were completed online, and 185 on paper (response rate = 48.8%).

For the leader population ($N = 152$), 49.3% of them were men. Their ages ranged from 24 years to 67 years ($M = 42.8$; $SD = 9$). Most leaders had a university degree (40.1%) or a university college degree (34.3%). Nineteen point one percent of the leaders has had secondary education and 4.6% has had no education or solely primary education. On average, they had 244.7 months of total work experience ($SD = 108.6$) and 105.48 months ($SD = 92.72$) of experience as a leader. The average leader was in charge of 14 followers (range: 1-150) and they were employed in different sectors: 49.3% profit, 19.7% non-profit and finally 28.3% government.

Two hundred twenty-six followers participated, of which 65.9% were women. The average age of the followers was 38.04 years ($SD = 10.70$). The youngest follower was 19 years old, the oldest 61. Fifteen point five percent of the followers had a university degree, 47.8% had a university college degree. 30.4% has had secondary education and only 1.4% has had no education or solely primary education. On average, the total work experience of our sample of followers was 193.4 months ($SD = 106.7$).

Measures

Leaders' Avoidant Attachment Style. As an avoidance pattern of attachment is labeled in the management literature as counterdependent attachment, we measured this attachment style using the seven counterdependence items of the Self-Reliance Inventory (SRI; Quick, Joplin, Nelson, & Quick, 1992) described by Joplin, Nelson, and Quick (1999). Responses were anchored on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree". In line with Joplin et al. (1999) we measured avoidant attachment style from the leaders' perspective. An example item was "Friends are a waste of time because in the end they will

desert you". One item was deleted to increase internal consistency (item 5). The reliability of the six items together was .70.

Authentic Leadership. Followers had to rate their direct leader using the 14-item version of the Authentic Leadership Inventory (ALI - Neider & Schriesheim, 2011). This questionnaire consists of 14 items, measuring the four dimensions of authentic leadership: Self-Awareness (3 items) (e.g. "My leader solicits feedback for improving my dealings with others"), Relational Transparency (3 items) (e.g. "My leader expresses his/her ideas and thoughts clearly to others"), Internalized Moral Perspective (4 items) (e.g. "My leader shows consistency between his/her beliefs and actions") and Balanced Processing (4 items) (e.g. "My leader asks for ideas that challenge his/her core beliefs"). Responses were anchored on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree". The reliability of the scale was .90.

Authentic Followership. Authentic followership was measured using a self-report Authenticity Inventory described by Kernis and Goldman (2006) and adapted by Leroy et al. (2012). This questionnaire consists of 16 items measuring the four dimensions of authentic followership: Self-Awareness (4 items) (e.g. "I am aware of why I do the things I do"), Balanced Processing (4 items) (e.g. "I'd rather not be confronted with my personal limitations and shortcomings"), Relational Transparency (4 items) (e.g. "I often pretend to like something when I really do not") and Internalized Moral Perspective (4 items) (e.g. "I stay true to my personal values"). Followers were asked to rate themselves on these items using a 5-point Likert-type scale using anchors ranging from "completely disagree" to "completely agree". One item was deleted of the moral perspective dimension on the basis of reliability analysis. The reliability estimate of the final 1-item scale was .79.

Each of the three scales described above was translated into Dutch using the back-

translation method (Brislin, 1970).

Additionally, a demographic questionnaire was inserted to gather information about the participants' gender, age, seniority and education.

Data Analyses

Data analyses was performed using Statistical Package for the Social Sciences (SPSS) (version 22) and hypotheses were tested using Structural Equation Modelling (SEM) with lavaan version 0.5-22 in R (Rosseel, 2012). Before conducting the analyses, missing values were dealt with using Expectation Maximization (EM) approach (Dempster, Laird, & Rubin., 1977) (amount of missing values: 5.08%). After imputation, 1.87% of the data remained missing and were deleted list wise.

SEM analysis was used because it takes measurement errors into account by defining latent variables based on their indicators. Maximum likelihood estimation was used with robust standard errors and a Satorra-Bentler Scaled test statistic (MLM). This test statistic takes the non-normality of the data into account by dividing the normal-theory chi-square statistic by a scaling correction (Satorra, 2000). Robust standard errors take heteroscedasticity into account (White, 1980).

Based on Hoyle (1995) recommendations the following fit indices were used to evaluate model fit: Satorra-Bentler Scaled Chi Square, Comparative Fit Index (*CFI*) (Bentler, 1990), the Root Mean Square of Approximation (*RMSEA*) (Steiger, 1990), and the Standardized Root Mean Square Residual (*SRMR*) (Hu & Bentler, 1999). Results were considered statistically significant at $p < .05$.

Results

Table 3.1 presents the correlations and descriptive statistics of the study variables. Authentic leadership was positively associated with authentic followership ($r = .36$, $p < .01$). Also, avoidant attachment style rated by the leader was negatively related to authentic leadership rated by the follower ($r = -.16$, $p < .01$). The correlation between avoidant attachment style rated by the leader and authentic followership was not significant ($r = -.04$, $p < .1$). However, the absence of a statistically significantly relationship between those two variables does not necessarily mean that mediation is not possible (Hayes, 2013; Zhao, Lynch, & Chen, 2010). Therefore, mediation analyses was conducted using SEM.

Table 3.1. Descriptive statistics and correlations among the study variables

	Total Score	(1)	(2)	(3)	(4)
	<i>SD</i>				
(1) Age	38.01 (10.68)	-			
(2) Avoidant Attachment	8.82 (2.76)	-.08	(.70)		
(3) Authentic Leadership	54.46 7.58	.02	-.16**	(.90)	
(4) Authentic Followership	54.89 (5.62)	.15	-.04	.36**	(.79)

Note: N ranges from 208 - 222 due to missing data. Cronbach alpha at the diagonal. ** correlation significant at the $p < .01$ level

First, confirmatory factor analyses were performed to validate the higher-order factor structure of authentic leadership and authentic followership. We found a good fit for a higher-order factor model for authentic leadership ($X^2(73) = 101.81$, $CFI = .97$, $RMSEA = .04$, $SRMR = .05$). We also found a fairly good fit for a higher order factor model for authentic

followership ($X^2(86) = 148.34$, $CFI = .87$, $RMSEA = .04$, $SRMR = .06$). This model was superior in comparison to a one factor model ($X^2(90) = 249.78$, $CFI = .72$, $RMSEA = .08$, $SRMR = .08$). To reduce the complexity of the model and have a more parsimonious model, the respective items belonging to their respective dimension were aggregated for both authentic leadership and authentic followership.

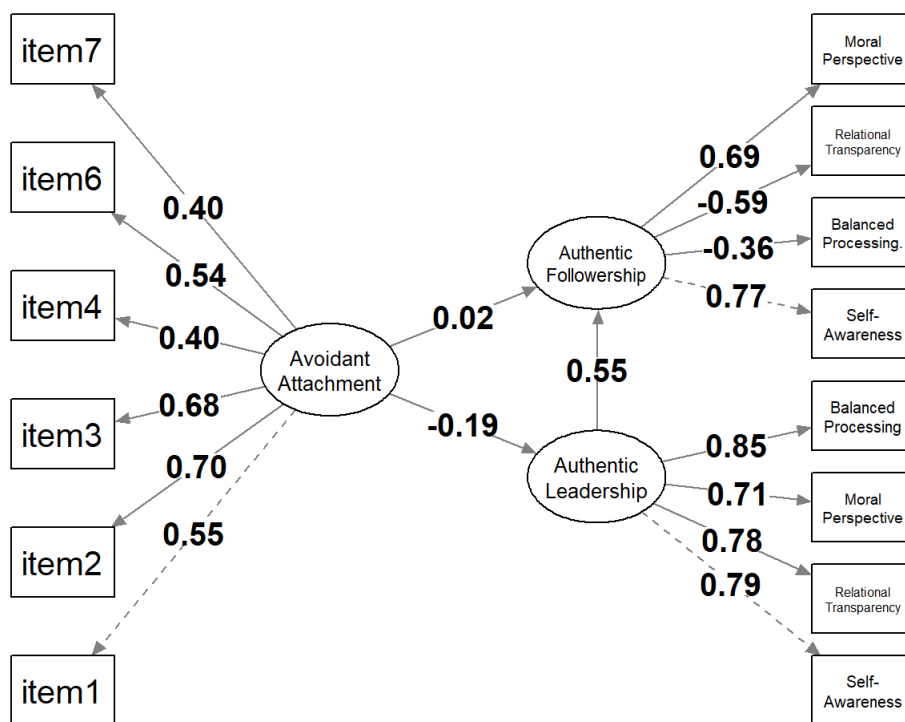


Figure 3.2. SEM results of the hypothesized model. Avoidant attachment style and authentic leadership were measured using leaders' perspective. Authentic followership was measured at followers' level.

Next, the proposed mediation model was tested and yielded an adequate fit for the data ($X^2(74) = 134.10$, $CFI = .92$, $RMSEA = .06$, $SRMR = .07$). All factors loadings of

the latent constructs (authentic leadership, authentic followership and avoidant attachment style) were significantly related to their indicators ($p < .001$) (see Figure 3.2).

All path estimates, implied by hypothesis 2, were statistically significant (see Table 3.2): avoidant attachment style was significantly negatively related to authentic leadership ($\beta = -.19$, $p < .05$). Authentic leadership in its turn was significantly positively related to authentic followership ($\beta = .55$, $p < .01$). Opposed to hypothesis 1, the direct effect was not significant ($\beta = .02$, $p > .1$), while the indirect effect of avoidant attachment style on authentic followership was significant ($\beta = -.37$, $p < .05$). This supported Hypothesis 2 which states that authentic leadership mediated the relationship between leaders' avoidant attachment style and authentic followership. Overall, the model explained 28% of the variance in authentic followership.

Table 3.2. Effect estimates of the hypothesized relationships

Hypothesis	Structural relation (path)	Standardized path coefficient (SD)
Hypothesis 1	Avoidant attachment → Authentic followership	.02 (.29)
Hypothesis 2	Avoidant attachment → Authentic leadership	-.19* (.39)
	Authentic leadership → Authentic followership	.55** (.08)

Note. * significant at the $p < .05$ level, ** significant at the $p < .01$ level

Discussion

The purpose of this study was to examine the relationship between two key interpersonal themes, attachment orientation and authentic leadership. Previous studies argued for the association between attachment style and authentic leadership, however this was mainly theoretical (e.g. Hinojosa et al., 2014). To date, no empirical studies have demonstrated the relationship between insecure attachment styles, such as an avoidant style, and authentic leadership. Additionally, empirical evidence for the association between leader's attachment style and authentic followership was still lacking. The current study aimed to fill these voids, by investigating whether leader's internal working models (i.e. attachment style) has an influence on authentic followership. Moreover, we argued that authentic leadership style was an explaining mechanism in this relationship. Specifically, we stated that leaders with an avoidant attachment style will behave in a less authentic way, which in turn results in less authentic followers.

Our results supported our second hypothesis. Specifically, we found that the negative association between leaders' avoidant attachment style and authentic followership can be explained by authentic leadership. As proposed by Gardner and colleagues' (2005) theoretical model, authentic leaders seem to stimulate authentic followership. However, our results suggest that the opposite is also true: leaders with an avoidant attachment style are perceived as less authentic. Consequently, inauthentic leaders seem to not encourage authenticity in their followers, as reflected by lower levels of authentic followership.

It seems that avoidant leaders build a distance between themselves and their followers, and do not encourage self-growth. As a consequence, followers will pick this up. Since they perceive their leader as a role model (Gardner et al., 2005), they will also behave in a way similar to their leader, which is not an authentic manner. Followers might also do less self-

exploration, since they are not encouraged to do so. Additionally, because their leader is so distant and does not often communicate with them, they also tend to do the same. As a consequence, they will become less aware of their personal internal values and norms, and if they do, they will not explain them or stand by them towards others.

Theoretical and Practical Implications

Overall this study provides several contributions to the literature of authentic leadership. First, this study elaborated on the previous work of authentic leadership scholars (Gardner et al., 2005; Hinojosa et al., 2014; Shamir & Eilam, 2005) positing that personal history has an impact on authentic leadership and authentic followership. We have demonstrated that attachment theory provides a useful perspective to understand these previous experiences and to illustrate how the dominant way of relating to others in close relationships at work might influence leadership style and authentic followership (Gardner et al., 2005). Attachment theory captures the relational working models leaders have. These working models are shaped by early life experience, but also by later relational and work experiences. These experiences exert an influence on leaders' self-awareness (Gardner et al., 2005): encountering different trigger events during the life span can make leaders more aware of who they really are, how they react in certain situations, and of their moral values, motives and identity.

However, in our study, we found that leaders with an insecure working model are less likely to accomplish authenticity. These findings are in line with the theoretical assumptions of Hinojosa et al. (2014). Thus, due to their predisposition of independent and avoidant behavior, they are likely to be perceived as less authentic. Leaders with an avoidant attachment style do not want to be close to or dependent on others (Gillath et al., 2010). Furthermore, they are more protective of themselves so they do not show or communicate to others how they feel. As a consequence, followers will perceive them as less authentic

(Lemay & Clark, 2008). This is also what we have found in our study. Moreover, since followers perceive their leader as less authentic, this undermines the relationship between leader and follower. As a result, followers are not stimulated to develop themselves, and are not exploring their own emotions, motives, and feeling. This results in less authentic followership. Thus our results show, in line with the theorizing of Hinojosa et al. (2014) that an avoidant attachment orientation seems to be a limiting condition for authentic leadership and authentic followership development as well.

Second, the findings of this study contribute to the literature by answering calls of authentic leadership and attachment scholars to pay more attention to followers. Indeed, both academic scholars and practitioners claim the importance of authentic followership (e.g. Gardner et al., 2005; George, 2003). However, empirical studies on authentic followership are rather scarce (e.g. Leroy et al., 2015). Thus, by focusing on authentic followership, our study is among one of the first empirical studies to expand its nomological network. We have demonstrated that leader's relational working models (i.e. attachment style) might have an indirect effect on authentic followership. Moreover, as the strength of the statistically significantly negative relationship between avoidant attachment style and authentic leadership is rather low in our study, we give evidence in favor of their conceptual distinctiveness.

In addition to the theoretical implications, this study has also revealed a practical implication. The findings of this study can aid scientists and practitioners working on intervention programs aiming to facilitate attachment style, the positive relationships between leaders and followers, and authentic leadership. Indeed, attachment orientation might be conceptualized as an antecedent of authentic leadership, reflecting that one's attachment orientation might become a pathway towards the development of an authentic leader. Previous research already showed that an attachment style is not determined and can still be changed and developed (Mikulincer & Shaver, 2007). The portrayal of authentic leadership

in terms of internalization of an attachment style is a promising finding, since attachment orientation is unrelated to genetic factors and is thus largely determined by the environment (Crawford et al., 2007). However, further research is needed to identify best practices allowing an increase in authentic leadership and followership in organizations.

Strengths, Limitations and Further Research

Through using dyads and multisource, the design of our study has several strengths. Firstly, by using two different perspectives (i.e. leader and follower), this study partly rules out common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The independent variable (i.e. avoidant attachment orientation) was measured using leader's perspective, whereas the dependent variable (i.e. authentic followership) was measured using follower's perspective. Combining both data sources has the advantage that the relationship between avoidant attachment orientation and authentic followership is not influenced by the mindset of a single rater (Podsakoff et al., 2003). Secondly, by guaranteeing participants anonymity, stressing that there are no wrong or right answers and by using valid measuring instruments with sufficiently high internal consistency and consisting of multiple items (Spector, 2006), common method bias was also reduced (Podsakoff et al., 2003).

Our study, however, has a few limitations as well. Firstly, the present study is based on a cross-sectional research design, which restricts the determination of causality (Leary, 2004). In order to infer that attachment style causes authentic leadership, three criteria must be met: a correlation between the two variables is obtained, the causal variable (i.e. attachment style) must precede the dependent variable (i.e. authentic leadership), and external factors that might influence the relationship between the two variables must be controlled or eliminated (Leary, 2004). This design fulfilled only one of the three conditions for causality, namely obtaining an association between the variables. There is no guarantee that attachment style

appears before authentic leadership in time. Also, it cannot be ruled out that external factors had an influence on the relationship between these two variables. Longitudinal research can potentially provide evidence for causality between one's attachment style and authentic leadership and/or authentic followership.

Secondly, our research did not take the attachment style of the follower into account. However, since this study is one of the first exploring the relationship between leader's attachment style and authentic leadership and followership, we avoided making the model too overly complex. However, attachment style of the follower can also influence the relationship between leader and follower and can thus serve as an inhibiting (e.g. insecure attachment style) or a stimulating factor (e.g. secure attachment style) (e.g. Hinojosa et al., 2014; Davidovitz et al., 2007). Further research should focus on including followers' attachment style to investigate how those two styles develop, maintain, or influence each other. Further research might also explore the effect of (dis)similar attachment styles within work dyads on personal and work-related outcomes.

Thirdly, our study focused on the influence authentic leaders have on their (authentic) followers. However, several scholars have argued that authentic followers also exert an influence on their leader (e.g. Gardner et al., 2011). Further research might investigate the potential bidirectional relationship between authentic leadership and authentic followership as well.

Conclusion

Our study has indicated that leaders' avoidant attachment style may diminish authentic followership in an indirect way, through their leadership style. We have shown that authentic leadership mediates the relationship between leaders' avoidant attachment style and authen-

tic followership. These findings suggest that leaders should be aware of the influence previous life and interpersonal experiences have on both their leadership style and the development of authenticity in their followers. The results open up a new line of scientific research in the authentic leadership domain and provide practitioners with new insights on how authentic leadership and followership might be fostered in organizations.

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4 | Authentic leadership and thriving among nurses: the mediating role of empathy ¹

Nurses' thriving is a key asset for health care organizations, and its significant role warrants the need to identify the underlying key determinants and psychological mechanisms. Therefore, the relationship between perceived authentic leadership and two dimensions of thriving (learning and vitality) among nurses, and the mediating role of empathy in this relationship was examined. A cross-sectional design was carried out in a large hospital in September 2013. Self-administered questionnaires were distributed to 360 nurses. The main hypotheses were tested through hierarchical regression analyses. The significant positive relationship between perceived authentic leadership and vitality was mediated by perceived empathy. This mediation however, was not confirmed in relation to learning. It is concluded that nurse managers' authentic leadership enhances nurses' thriving at work. Furthermore, empathic nurse managers seem to increase the vitality of their nurses.

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Introduction

Recent developments within the field of organizational behavior have pointed to the importance of employees' thriving for organizational performance (Porath, Spreitzer, Gibson, & Garnett, 2012). So far, neither thriving nor its antecedents and explanatory mechanisms have been studied within the nursing context. Therefore, the current study aims to examine nurses' thriving. It focuses on the relationship between perceived nurse managers' authentic leadership (antecedent) and nurses' thriving. Additionally, it investigates whether perceived nurse managers' empathy (mediator) can account for this relationship.

Thriving at work is defined as "a psychological state in which individuals experience both a sense of vitality and a sense of learning at work" (Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, 2005, p. 538). When experiencing thriving, people feel alive and energized (vitality) and perceive that they are making progress (learning) (Porath et al., 2012). Employees who are only experiencing vitality, but are not learning, may feel they cannot make full use of their potentials. Conversely, when employees are learning, but not experiencing vitality, they will feel drained from their work.

Both vitality and learning are key assets in the nursing context. Indeed, nurses are continuously confronted with new work conditions such as new technologies, new treatment methods and changing distribution of tasks (Pool, Poell, & ten Cate, 2013). These changes imply that nurses constantly have to learn in order to maintain and ameliorate their quality of work (Pool et al., 2013). Besides, vitality is an important motivational component in the workplace and is related to job performance (Carmeli, Ben-Hador, Waldman, & Rupp, 2009) and well-being (Shirom, 2010).

Background

Research on thriving has so far been scarce, particularly in the nursing context. Therefore, the current study attempts to broaden the current knowledge by focusing on one potential key antecedent of thriving, namely authentic leadership. Previous studies indicated that leadership is associated with positive work outcomes, such as employees' work-related well-being (e.g. C. A. Wong, Laschinger, & Cummings, 2010). For instance, relational-focused leaders elicited more positive outcomes in the nursing work environment than task focused leaders (Cummings et al., 2010). Also Utriainen, Ala-Mursula, and Kyngäs (2015) posited, in their theoretical nurses' well-being model, that fair and supportive nurse managers have a direct and an indirect influence on nurses' work-related well-being.

Authentic leadership is a leadership style that is considered fair and supportive (Avolio & Gardner, 2005). Also, it is considered to be a relevant leadership style in the nursing context (e.g. C. A. Wong & Laschinger, 2013). Avolio and Gardner (2005) distinguished four dimensions of authentic leadership in their conceptualization: self-awareness, an internal moral perspective, balanced processing and relational transparency. Self-awareness demonstrates how the leaders perceives themselves in comparison to the world and to their understanding of their own strengths and weaknesses. Next, internalized moral perspective refers to an internalized and integrated form of self-regulation. Authentic leaders align their beliefs with their actions and are not often persuaded by external pressures. The third component, balanced processing, refers to their decision-making, which is based on the analyses of all relevant data, being positive or confirming information or negative clues. The final component, relational transparency, reflects how openly the leader present her/himself to others. Encompassing all four components, authentic leadership provides a healthier, more ethical work environment. For instance, Avolio, Gardner, Walumbwa, Luthans, and

May (2004) reported a positive relationship between authentic leadership and positive work outcomes such as employee job satisfaction and engagement.

Several studies have demonstrated the importance of authentic leadership in the nursing context. For example, Laschinger, Wong, and Grau (2012) found that authentic leadership was associated with reduced turnover intentions in graduate nurses. C. A. Wong and Laschinger (2013) ascertained that authentic leaders had a positive effect on nurses' job satisfaction and self-rated performance.

This paper contributes to the field of nursing leadership research by investigating whether authentic leadership is related to thriving in a nursing context. It has drawn inspiration from the following areas of understanding. First, there seems to be a positive relationship between authentic leadership and positive work outcomes which are likely to occur in thriving environments (C. A. Wong & Laschinger, 2013). Then, it has been confirmed that authentic leadership is positively associated with work engagement, which is related to thriving (e.g. C. A. Wong et al., 2010). Previous studies have also suggested an association between leadership and job related learning (Loon, Lim, Lee, & Tam, 2012) and between leadership and vitality at work (Carmeli et al., 2009).

Based on the studies mentioned above and following the theoretical model of Utriainen et al. (2015), we expect a positive relationship between perceived nurse manager's authentic leadership and nurses' thriving (vitality and learning). We propose the following hypothesis:

Hypothesis 1: Authentic leadership is positively related to nurses' (a) vitality and (b) learning.

In following this hypothesis, a question arises about which psychological mechanism can explain the potential positive relationship between authentic leadership and thriving. A few studies have thus far focused on the identification of mediators between authentic leadership and positive work outcomes in the nursing environment. C. A. Wong and Laschinger (2013)

found that empowerment is a variable accounting for the relationship between authentic leadership, job satisfaction and job performance. In the study of C. A. Wong et al. (2010), the mediators were personal identification and trust in the manager.

Our research investigates perceived nurse managers' empathy as a potential mediator in the potential positive relationship between authentic leadership and thriving. Empathy is an important social competence for nurses, especially when nurses are interacting with and taking emotional care of patients (Shanta & Gargiulo, 2014). Empathy fosters understanding of patients' moods and feelings (Rego, Godinho, McQueen, & Cunha, 2010) and is also important for leaders. Being part of emotional intelligence (Goleman, 2004), empathy is linked with leaders' effectiveness (Akerjordet & Severinsson, 2004), and predicts leadership potential (Sadri, 2012). Empathic leaders have a positive impact on their subordinates (Castro, Gomes, & de Sousa, 2012), thus enhancing their job performance and job satisfaction (C. Wong & Law, 2002).

Hence, we argue that empathy is an explanatory variable in the relationship between authentic leadership and subordinates' thriving in that subordinates' recurrent experience of leaders' empathy is welcomed and often results in increased feelings of connectivity at work (Carmeli & Spreitzer, 2009). Moreover, leaders' empathy at work can be considered as an important emotional work resource that can induce a motivational and energetic activation in nurses, resulting in more motivation to learn and more vitality at work (Bakker & Demerouti, 2007). This leads us to formulate our second hypothesis (see figure 4.1):

Hypothesis 2: The relationship between authentic leadership and nurses' (a) vitality and (b) learning is mediated by nurse managers' empathy.

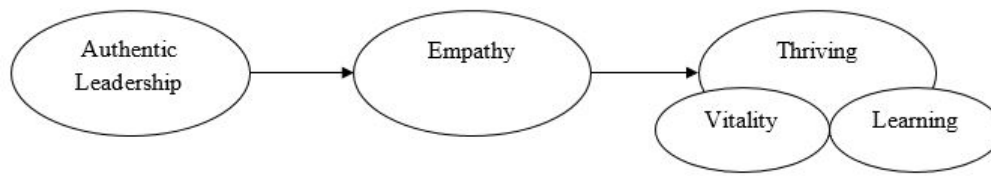


Figure 4.1. Representation of hypothesis 2: authentic leadership has an indirect effect on vitality and learning through empathy.

Method

Sample

Nine hundred fifty nurses were approached in a large hospital. Of this population, 360 returned a usable questionnaire, yielding a response rate of 37.9%, which can be considered acceptable (Baruch & Holtom, 2008). The sample consisted of 83.4% women. Age ranged from 20 to 60+ years, with 30.7% between 30 and 39 years old, followed by 28.5% between 20 – 29 years (28.5%). The minority of the sample received higher education meaning that 11.8% of the respondents have a master's or higher degree. On average, the nurses in our sample had 14.4 years seniority in the current hospital, with their year of experience ranging from 1 month to 43 years. Nurses in this sample were recruited from 54 different units, with 8 nurses per unit on average. Ward size varied from 1 nurse to 30 nurses.

Measures

Empathy. Perceptions of the nurse managers' empathy were measured with four items adopted from a subscale of the questionnaire developed by C. Wong and Law (2002) on emotional intelligence. Instead of self-rated empathy, we chose to consider the nurses' point of view about their nurse manager, since perceived empathy by others is a stronger predictor than self-perceived empathy. This is because self-reported ratings tend to be biased (Cullen,

Gentry, & Yammarino, 2015). Moreover, since we examined an outcome among nurses, the perception of the nurses managers' empathy of the nurses has a stronger impact on this outcome in comparison to that of the nurse managers themselves. In line with Mahsud, Yukl, and Prussia (2010), the item wording was adapted so that the nurses could rate the empathy of their nurse manager. A sample item of this adaption is: "My nurse manager is sensitive to the feelings and emotions of others". The coefficient alpha of reliability for this scale was .87.

Authentic Leadership. Applying the same reasons outlined above, we investigated the nurses' point of view about authentic leadership of their nurse manager. To measure this, the 14-item Authentic Leadership Inventory (ALI) was applied (Neider & Schriesheim, 2011). Each dimension of authentic leadership was measured using several items. A sample item of self-awareness (measured by three items) was "My nurse manager describes accurately the way the others view his/her abilities."; for relational transparency (measured by three items): "My nurse manager objectively analyzes relevant data before making a decision."; for balanced processing (measured by four items): "My nurse manager asks for ideas that challenge his/her core beliefs."; and for moral perspective (measured by three items): "My nurse manager shows consistency between his/her beliefs and actions.". To compose authentic leadership, the total scale score was calculated (Neider & Schriesheim, 2011). The coefficient alpha of reliability was .92.

Thriving. Nurses' thriving was measured using the 10-items scale of Porath et al. (2012). Half of the items measured learning, the other half vitality. Sample items for the two dimensions were: "I find myself learning often" (learning) and "I feel alive and vital" (vitality). The coefficient alpha of reliability for learning and vitality were .80 and .86 respectively.

Each of the three scales described above was translated into Dutch using the back-

translation method (Brislin, 1970). Answers were rated on a five-point Likert scale, ranging from 1 = ‘totally disagree’ to 5 = ‘totally agree’. Additionally, a demographic questionnaire was also used to gather information about the participants’ gender, age, seniority in the current hospital, unit, and education.

Data Collection and Ethical Considerations

All nurses were invited to participate in the study in August 2013, and were given a paper version of the questionnaire. A cover letter was attached to the questionnaire explaining the purpose of the study, so was the informed consent form with all the necessary information about their rights and the researchers’ contact details. The questionnaires were distributed and collected using the internal mail service by October 2013. All the participants provided their informed consent. This study was approved by the medical ethics committees of the authors’ University and the participating hospital.

Data Analysis

Data analysis was performed using IBM SPSS Statistics, version 22. Results were considered statistically significant at $p \geq .05$ level. Since our hypotheses were formulated at the individual level, we analyzed our data at the individual level. In all our analyses, we controlled for gender, age, seniority in the current hospital, and education (Niessen, Sonnentag, & Sach, 2012; Porath et al., 2012). To test the relationship between authentic leadership and thriving, a hierarchical regression analysis was performed. To test the second hypothesis (mediation analysis), we used the 3-step procedure of Baron and Kenny (1986). A bootstrapping method was also applied to these analyses (Hayes, 2013). Bootstrapping drew random samples with replacement multiple times from the original data set. Next, a 95% confidence interval was calculated for the effects. Lastly, a Sobel test was used to test whether the in-

direct effect of authentic leadership on thriving through empathy was significantly different from zero (Preacher & Hayes, 2004).

Since the nurses were clustered within units, and we wanted to rule out the effect this could have on our results, we conducted supplementary analyses using linear mixed models to control for possible unit level effects (Bliese, 2000).

Results

Table 4.1 displays the means, standard deviations, correlations and internal consistencies of the measures in this study. All key variables were statistically significantly and positively correlated.

Table 4.1. Means, standard deviations, Pearson correlations and internal consistencies of the studied variables.

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Organizational Seniority	14.35	11.05	-					
2. Authentic Leadership	47.20	9.06	.14**	(.93)				
3. Empathy	12.89	3.29	.14**	.68**	(.87)			
4. Thriving	39.36	4.91	-.10	.32**	.31**	(.85)		
5. Vitality	19.26	3.26	.01	.28**	.30**	.88**	(.86)	
6. Learning	20.13	2.57	-.18**	.26**	.21**	.80**	.41**	(.80)
Note. * $p < .05$; ** $p < .01$. Internal consistency reliabilities (α) are shown on the diagonal. $N = 355$								

To test the first hypothesis at the individual level, a hierarchical regression analysis was carried out with vitality and learning as outcome variables and authentic leadership as a predictor variable.

Regarding vitality (see the left side of Table 4.2), the results show that the control variables were not significantly related to thriving ($F(4, 351) = .451$; $p = .772$). Authentic

leadership was entered in step 2 and explained 7.5% incremental variance in vitality ($F(1, 350) = 28.35; p < .001$). A higher score on authentic leadership was associated with more vitality in nurses ($\beta = .28; p < .001$). Regarding learning (see the right side of Table 4.2), the results indicate that only the control variable seniority in the current hospital was statistically significant ($\beta = -.22; p = .047$). Authentic leadership, which was entered in step 2, explained 8.2% incremental variance in this variable ($F(1, 352) = 32.53; p < .001$). The more authentic the nurse manager was perceived, the more nurses reported to have learned at work ($\beta = .29; p < .001$). These results have confirmed hypothesis 1.

To test the mediation hypothesis, three conditions must be met according to the multi-step procedure for analyzing mediating effects (Baron & Kenny, 1986). The first step of these analyses was tested for hypothesis 1 (see Table 4.2) and the results show that authentic leadership was positively related to both thriving components (vitality and learning). The second step tested whether authentic leadership was related to empathy of the leader. Thus, a hierarchical regression was conducted with nurse managers' empathy as an outcome variable and authentic leadership as a predictor variable (see Table 4.3), to test the effect of the predictor variable on the mediator. Control variables were entered in the first step of the regression, and authentic leadership in the second step. Again, seniority was the only statistically significant control variable ($\beta = .36, p < .01$). In the second step, authentic leadership explained 43.4% of the incremental variance in empathy ($F(1, 354) = 290.39, p < .001$). Authentic leadership was strongly and positively related to nurse managers' empathy ($\beta = .67; p < .01$).

In the third step we tested whether empathy of the leader influenced thriving. Additionally, in this step, the strength of the direct relationship between authentic leadership

Table 4.2. Hierarchical regression of learning and vitality on control variables and authentic leadership

Predictor	Vitality		Learning	
	Step 1	Step 2	Step 1	Step 2
Control Variables				
- Age	-.04	-.01	-.05	-.01
- Gender [†]	-.02	-.01	.01	.02
- Organizational Seniority	.05	-.02	-.14	-.22*
- Education ^ω	-.07	-.06	.01	.02
Authentic Leadership		.28**		.29**
R ²	.01	.08**	.04**	.12**
Adjusted R ²	-.01	.06**	.02**	.10**
ΔR ²	.01	.08**	.04**	.08**

Note. * $p < .05$; ** $p < .01$. [†] 0 = male, 1 = female. ^ω 0 = lower education, 1 = higher education (Master's or higher degree). $N = 358$ for learning and 356 for vitality. The values in the tables are the standardized regression weights (β).

and thriving should be mitigated. Here, a hierarchical regression was used with vitality and learning as outcome variables. The following variables were added: control variables (step 1), authentic leadership (step 2) and empathy (step 3).

Regarding vitality (see the left side of Table 4.4), nurse managers' empathy explained 2.8% incremental variance in this variable ($F(1, 349) = 9.96$; $p < .01$). The more nurses perceived their nurse manager as empathic, the more vitality the nurses reported ($\beta = .22$; $p < .01$). Furthermore, a Sobel test (Preacher & Leonardelli, 2001) showed that the regression weight of authentic leadership reduced significantly ($\beta = .13$) and became statistically insignificant when controlling for empathy ($z = 3.09$; $p > .01$). Additionally, bootstrapped confidence intervals (95%) were computed using Hayes Process 2.10 software (Hayes 2013) (5000 bootstrapped samples). After we entered control variables and authentic leadership in the analysis, the confidence interval for the mediating effect of empathy on vitality was $CI [.063; .136]$ ($z = .052$, $se = .016$), whereas authentic leadership no longer had a direct effect on vitality ($CI [-0.001; .096]$ ($z = .047$, $se = .025$)). These results indicate perfect or

Table 4.3. Hierarchical regression of empathy on control variables and authentic leadership.

Predictor	Step 1	Step 2
Control Variables		
- Age	-.26	-.17*
- Gender [†]	-.04	-.01
- Organizational Seniority	.36**	.19*
- Education ^ω	.05	.07
Authentic Leadership		.67**
R ²	.04	.47**
Adjusted R ²	.03	.46**
ΔR ²	.04	.43**

Note. * $p < .05$; ** $p < .01$. [†] 0 = male, 1 = female. ^ω 0 = lower education, 1 = higher education (Master's or higher degree). The values in the tables are the standardized regression weights (β). $N = 360$.

full mediation (Baron & Kenny, 1986).

Regarding learning (see right side of Table 4.4), leaders' empathy did not explain incremental variance in this variable ($F(1, 351) = 2.47$; $p = .12$). Although bivariate analysis (see Table 4.1) showed a positive association between leaders' empathy and learning ($r = .21$; $p < .01$), multivariate analysis through hierarchical regression (see Table 4.4) revealed that nurses' learning remained strongly and positively associated with the authentic leadership style of the nurse manager ($\beta = .22$, $p < .01$), even after we controlled for nurse managers' empathy ($F(1, 351) = 2.47$; $p = .12$). This indicates that leaders' empathy is not mediating the positive relationship between authentic leadership and nurses' learning.

In addition to the main analyses, we conducted linear mixed models to control for the effect the nurses' unit might have on our results (Bliese 2000). Initially, we estimated the null models for vitality and learning as outcomes, and in these models individual- and group-level predictors were excluded. The results indicated that unit structure explained only 8% of the

Table 4.4. Hierarchical regression of learning and vitality on control variables, authentic leadership and empathy.

Predictor	Vitality			Learning		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Control Variables						
- Age	-.04	-.01	.03	-.05	-.01	.01
- Gender [†]	-.02	-.01	.01	.01	.02	.03
- Organizational Seniority	.05	-.02	-.06	-.14	-.22*	-.24*
- Education ^ω	-.07	-.06	-.07	.01	.02	.01
Authentic Leadership		.28**	.13		.29**	.22**
Empathy			.22**			.11
R ²	.01	.08**	.11**	.04**	.12**	.12
Adjusted R ²	-.01	.07**	.09**	.02**	.10**	.11
ΔR ²	.01	.08**	.03**	.04**	.08**	.01

Note. * $p < .05$; ** $p < .01$. [†] 0 = male, 1 = female. ^ω 0 = lower education, 1 = higher education (Master's or higher degree). $N = 358$ for learning and 356 for vitality. The values in the tables are the standardized regression weights (β).

variance in vitality ($ICC = .08$) and 7% of the variance in learning ($ICC = .07$). In the next step, control variables and individual perception of authentic leadership were included in the model. Adding aggregated unit level authentic leadership did not have any incremental value to the individual perceptions, nor for vitality ($b = -.04$; $se = .04$; $p = .38$) nor for learning ($b = -.01$; $se = .03$; $p = .88$). The same stepwise models were repeated for empathy in relationship to both outcomes, and also here empathy at unit level did not contribute to predict vitality ($b = .06$; $se = .13$; $p = .61$) nor learning ($b = .07$, $se = .10$; $p = .47$).

Discussion

The goal of our study was to investigate the relationship between perceived authentic leadership and nurses' thriving, which is a relatively new perspective on work related well-being, and to study the mediating role of empathy in this relationship. To our knowledge, this study is the first to investigate authentic leadership and thriving in a nursing context.

The results showed a positive association between perceived authentic leadership and both thriving indicators, confirming our first hypothesis. These results strengthen the established understanding that authentic leadership has a positive impact on positive work outcomes such as thriving (i.e. Avolio et al., 2004; Carmeli et al., 2009). This finding is in line with earlier studies, which demonstrate the influence of leadership on employees' learning behavior and motivation to learn (Loon et al., 2012). Moreover, our results confirm the positive relationship between leadership and vitality (Hamilton & Schriesheim, 2001). The paper has thus contributed to the understanding of the relationship between authentic leadership, vitality and learning within a nursing population.

In relation to our second hypothesis, we stated that perceived empathy mediates the relationship between authentic leadership and thriving (learning and vitality). Our results partially support our hypothesis. The results showed full mediation of nurse managers' empathy in the relationship between authentic leadership and vitality. However, a positive association between authentic leadership and learning was not explained by empathy of the leader. In what follows, we will first discuss the full mediation on vitality; then the lack of mediation on learning.

A first possible explanation of the full mediation is that, as authentic leaders, showing empathy for their subordinates might increase the positive rating of the leaders, and heighten the amount of support the subordinates offer to their leader (Goldstein, Vezich, & Shapiro, 2014). Therefore, empathy from leaders can strengthen the relationship between leader and subordinates and elicit more positive feelings in the work environment (C. Wong & Law, 2002), such as vitality.

Another possible explanation for these results could be the typical extensive relational transparency exposed by an authentic leader (Avolio & Gardner, 2005). Relational transparency refers to how open and transparent leaders are towards their followers in sharing

information with each other (Avolio & Gardner, 2005). Empathy could help with this open and transparent sharing of information. By being empathic, leaders understand the position of their subordinates and can help them when necessary (Yukl, 2010). Thus, when nurses are experiencing problems, their authentic leaders can readily assist or guide them. By doing so, the leaders have to understand the problem and consider the other's point of view (Gunther, Evans, Mefford, & Coe, 2007). As a result, subordinates may feel more energized and motivated to perform their job.

One possible explanation for the absence of mediation on learning is nurses' colleagues. When dealing with work related problems, maybe nurses are more inclined to seek and find help in their peers or colleagues than in their nurse managers. Authentic leaders might encourage their subordinates to exchange knowledge with each other. As a consequence, it could be that peers' empathy, and more broadly, the social support of colleagues, have a stronger impact on nurses' learning than nurse managers' empathy.

Secondly, the hypothesized mediating role of leaders' empathy in the relationship between authentic leadership and learning might be suppressed by unmeasured individual characteristics such as nurses' willingness to learn, their cognitive flexibility or intrinsic motivation. For example, we speculate that nurses will learn more when they have the intrinsic motivation to actually learn something. As a consequence, lack of intrinsic motivation can suppress the potential mediating role of nurse managers' empathy in the relationship between authentic leadership and learning.

Limitations and Future Research

The presented results need to be interpreted with caution, owing to some study limitations. First, we did not measure potential moderators that could have influenced the mediation in the relationship between authentic leadership and nurses' thriving. These moderators in-

clude individual characteristics and contextual factors. For instance, cultural factors might influence this relationship. We conducted our study in an individualistic country, where people are encouraged to be themselves (i.e. being authentic). It might be that the hypothesized relationships are weaker in more collectivistic countries, where a sense of belonging is more central (Hofstede, 1983).

Secondly, as our findings are based on a cross-sectional research design, no causal statements can be inferred. Although the present study has shown that there is a strong positive relationship between authentic leadership and nurses' vitality, and that such a relationship is mediated by the nurse managers' empathy, further longitudinal studies are needed to investigate the potential causal effects.

Finally, exclusively self-report measures were used in this study. These measures can cause common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). To limit this variance, we emphasized in our study that the participants' responses were anonymously processed. Additionally, we also used existing valid scales with good internal consistencies and consisting of multiple items (Spector, 2006).

To overcome the limitations mentioned above, further research on the relationship between authentic leadership style and employees' learning and vitality is needed.

Implications for Nursing Management

The findings of this study indicate that authentic leadership and leaders' empathy, as perceived by their subordinates, are relevant in the nursing context. Authentic nurse managers express more empathy for their nurses, which subsequently influences nurses' well-being, resulting in more invigorated nurses and more job-related learning among their staff.

Building on these findings, we encourage nurse managers' to use or learn an authentic leadership style and to express empathy for their nurses. Additionally, the results advocate

the development and implementation of an advanced leadership development training program where authentic leadership skills and the expression of empathy for subordinates can be learned and stimulated, since both are associated with nurses' thriving.

Conclusion

Our study has indicated that authentic leadership may enhance nurses' thriving in the workplace. Furthermore, we have shown that nurse managers' empathy fully mediates the relationship between authentic leadership and vitality. All these findings suggest that nurse managers should be aware that both their level of empathy and leadership style can be expected to influence the vitality of their nurses.

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5 | A time-lagged study of the relationship between authentic leadership and job satisfaction during organizational merging: the role of change perceptions^{1 2}

In the present study the time-lagged relationship between authentic leadership and job satisfaction was investigated together with the moderating role of followers' positive and negative perceptions of work-related changes on this relationship. A two wave survey study with a one-year time lag was conducted among 99 health care workers undergoing to an organizational merger. Results indicated that authentic leadership was associated with higher levels of job satisfaction one year later only when followers perceived the changes during the time-lag as highly threatening. The hypothesized strengthening effect of challenging change perceptions on the studied relationship during the time-lag could not be found. These results reflect the importance of authentic leadership prior to organizational merging and demonstrate that

¹A previous version of this study was presented at the Annual Conference of the Society for Industrial and Organizational Psychology: Mortier, A. V., & Vlerick, P. (2017). *Authentic Leadership and Job Satisfaction in Turbulent Times*. Presented at the 32nd Annual Conference of the Society for Industrial and Organizational Psychology, Orlando, Florida, USA.

²A previous version of this study was presented at the Conference of the European Association of Work and Organization Psychology: Mortier, A. V. & Vlerick, P. (2015). *The impact of authentic leadership on thriving in turbulent times*. Paper presented at the 17th Conference of the European Association of Work and Organization Psychology, Oslo, Norway.

authentic leadership outcomes are dependent on work-related changes and their perception.

Introduction

In the normal course of events, organizations try to be cost effective and efficient (Deutsch & West, 2010). As a consequence, they may sometimes merge in order to remain financially healthy and to cut costs. According to the theory of cognitive appraisal, followers can perceive merger-related changes as both threatening and challenging (Lazarus & Folkman, 1984). Because these perceptions of change may affect followers' job satisfaction and therefore their sense of well-being (Verhaeghe, Vlerick, Gemmel, Van Maele, & De Backer, 2006), they are an important factor in the practice of organizational change and should be studied during mergers (Buono, Bowditch, & Lewis, 1985; Teerinkangas, 2012).

Most research on this topic investigated the main effects of change perceptions on certain outcomes (Holten & Brenner, 2015). Verhaeghe et al. (2006) for example, found that both threatening changes and challenging changes are associated with followers' well-being at work. Indeed, it is important to investigate how perceptions regarding work changes can influence employees' well-being (e.g. job satisfaction). Job satisfaction should be encouraged in turbulent times, since it is linked to how rapidly employees adjust to the change (Amiot, Terry, Jimmieson, & Callan, 2006). However, studies which have included organizational change as a potential moderator are scarce. One of the few examples, is Carter, Armenakis, Field, and Mossholder (2013), who found evidence in favor of the moderating role of perceived change frequency in the association between the quality of the relationship between leader and follower and organizational citizenship behavior. Also, Liu, Caldwell, Fedor, and Herold (2012) demonstrated that change perceptions moderated the relation between the amount of support given by leaders in the process of change and perceived change fairness. These studies show that change perceptions can influence a number of relationships.

In the light of these findings, this study examines the potential influence of employees'

perceptions regarding merger-related changes on the relationship between authentic leadership style and job satisfaction. The significance of this research focus is that prior studies on authentic leadership in relation to followers' outcomes such as job satisfaction, have neglected the role of the organizational context (such as mergers) (Gardner, Cogliser, Davis, & Dickens, 2011). This lacuna is surprising as followers do not work in a vacuum. Hence, taking into account work-related change perceptions as one aspect of the organizational environment can help to understand the relationship between authentic leadership and job satisfaction in greater detail. Depending on whether the change is seen by followers as slightly or highly threatening, the association between authentic leaders and job satisfaction can significantly differ. In other words, similar levels of authentic leadership may lead to different levels of job satisfaction, depending on the perceived threat of the change. Similarly, the association between authentic leaders and job satisfaction can also differ, depending on whether the change is seen by followers as slightly or highly challenging. Hence, these change perceptions can have a moderating role in the relationship between authentic leadership and job satisfaction.

The present study investigates whether authentic leadership is positively associated with followers' job satisfaction during an organizational merger, using the change perspectives of employees. In doing so, we contribute to the literature in two ways. First, our study contributes to a more fine-grained insight into the relation between authentic leadership and its outcomes by investigating change perceptions as a boundary or minimum condition of authentic leadership theory. Indeed, several scholars have argued for the necessity of research into potential moderators in the relations between authentic leadership and its outcomes (Cooper, Scandura, & Schriesheim, 2005; Gardner et al., 2011). In addition, authentic leadership can be integrated in the organizational context, which can be threatening or challenging (Avolio & Gardner, 2005). Our study was set in a turbulent and changing work

environment (i.e. merger), because such an environment comes with multiple changes. As changes are fairly common for an organization to flourish and survive (Carter et al., 2013), it is important to investigate how these impact employees' well-being. Previous research has found evidence that the organizational context can influence the positive relationship between authentic leadership and followers' job satisfaction (Azanza, Moriano, & Molero, 2013). Monzani, Ripoll, and Peiró (2015) have also demonstrated how organizational characteristics can have the same influence. However, this latter study was conducted in the lab. Since change perceptions reflect employees' daily work experiences, we speculate that these perceptions might also influence this relationship.

The second aspect of our contribution to the literature is that, our two-wave research design also allowed us to investigate the long-term benefits of authentic leadership on its followers. Previously, Laschinger and Fida (2014) have demonstrated that authentic leadership has a long term negative association with bullying. However, no positive followers' work outcomes were investigated in their study. By examining the long term association between authentic leadership and followers' job satisfaction (i.e., a positive outcome), we address the call to pursue the investigation of long-term relationships as they strengthen the findings of the cross-sectional studies and provide stronger evidence in favor of causal explanations.

Theoretical Framework

Job Satisfaction and Authentic Leadership

Job satisfaction refers to an evaluative affective judgment about ones' job or job situation (Weiss, 2002). It results from employees' comparison between desired, anticipated, and deserved outcomes (Oshagbemi, 1999). Given its favourable individual and organizational

outcomes (e.g. Organ & Ryan, 1995; Judge, Thoresen, Bono, & Patton, 2001), a whole range of studies have investigated how to increase it. An important antecedent of followers' job satisfaction is their perception of their leaders' leadership style (Penger & Matej, 2014). More specifically, employees who perceived their leader as authentic and open report greater job satisfaction (Cerne, Dimovski, Maric, Penger, & Skerlavaj, 2014; Laschinger & Fida, 2015; Wong & Laschinger, 2013).

Authentic leadership style is considered a root construct underlying other positive leadership styles (Avolio & Gardner, 2005). It consists of four dimensions: self-awareness, relational transparency, moral perspective, and balanced processing. Self-awareness is an ongoing process in which the leader is aware of his/her strengths, weaknesses, talents, and values (Avolio, Gardner, Walumbwa, Luthans, & May, 2004). The leader expresses this awareness and acts upon this, using relational transparency towards others (Avolio & Gardner, 2005). As a result, authentic leaders foster and encourage trust in their employees, saying what they really mean instead of saying only what to please others. The third component is moral perspective, which refers to an internalized and integrated form of self-regulation (Avolio & Gardner, 2005), as a consequence of which, authentic leaders can resist external pressure. Lastly, balanced processing ensures that authentic leaders take all relevant information into account before making a decision (Avolio & Gardner, 2005). Together those dimensions represent a leader who knows his/her strengths and weaknesses, communicates his/her ideas and visions clearly to others, has clear moral standards upon which s/he acts, and reflects upon all relevant information.

Previous studies have found evidence of a positive relation between authentic leadership and job satisfaction (e.g. Azanza et al., 2013; Cerne et al., 2014; Wong & Laschinger, 2013). Authentic leaders create a safe environment in which his/her followers feel supported in their own needs, and will develop their own goals (Avolio & Gardner, 2005). Authentic

leadership is also associated with an increased learning environment (Mortier, Vlerick, & Clays, 2016). Followers feel accepted, and perceive fewer or no negative consequences in case of failure. This feeling further self-development (Mazutis & Slawinski, 2008), which when intrinsically motivated has a positive impact on job satisfaction (Lawler & Hall, 1970). Authentic leaders provide constructive feedback and involve their followers in the decision-making (Gardner, Avolio, Luthans, May, & Walumbwa, 2005; Ilies, Morgeson, & Nahrgang, 2005). In other words, followers are encouraged in their self-determination (Ilies et al., 2005), and are supported in their intrinsic work motivation, and internalized self-regulation (Deci, Connely, & Ryan, 1989). Such regulation is also encouraged by their self-determination, which also has a positive effect on their followers' job satisfaction (Deci et al., 1989).

Authentic leaders also engage in higher quality relationships through their relational transparency (Kernis & Goldman, 2005) and by participating in dialogue. Building upon both self-awareness and self-regulation, they have a strong sensitivity to their followers' needs and are able to adjust their behavior, and behave empathetically (Mortier et al., 2016), so that these needs are fulfilled. Because followers identify themselves with their authentic leaders, these followers will experience higher levels of support (Ilies et al., 2005), have more trust and hope in the leader, personally identify with him/her (Avolio et al., 2004), and feel empowered, all of which result in higher job satisfaction (Wong & Laschinger, 2013).

The research cited above studied the short-time associations between authentic leadership using cross-sectional studies. However, building high quality relationships takes time and might have positive associations in the long run as well (Boyd & Taylor, 1998). For example, specific leadership styles can have long-term associations as well. A study by Holten and Brenner (2015) found that the influence leaders have on the perceptions of their followers could only be detected when measured longitudinally. When inspected cross-sectionally, this effect was not found. And, as Shamir (2011) observes, cross-sectional studies are inade-

quate to investigate long-term effects and associations because they link leadership with an outcome at the same point in time. As a lagged association between authentic leadership and employees' well-being has not yet been demonstrated in the context of an organizational merger, the present study chose to investigate the long-term association between authentic leadership and followers' job satisfaction using a two-wave study in the context of a hospital merger.

The Moderating Role of Perceived Work-Related Changes

Most of the time, mergers are pushed through by upper management, and the role of employees is simply to adopt, contribute to and support the new system (Piper & Schneider, 2015). The way the merger is implemented by management, has a large impact on employees' reactions towards the change (Marsh, Hau, Balla, & Grayson, 1998). It can create rumors about work-related outcomes (e.g. layoffs, the impact on career advancement opportunities, and other consequences of change) and create stress (Bordia, Jones, Gallois, Callan, & DiFonzo, 2006). Thus, the decisions management makes, affect followers' perceptions about the changes which take place during the process of merger (Kavanagh & Ashkanasy, 2006; Williams, Pillai, Deptula, & Lowe, 2012). Instructions and the implementation of changes cascade from higher management to followers' direct leader. As a consequence, followers feel that the changes are not imposed by their direct leader, but are rather enforced by higher management (Kavanagh & Ashkanasy, 2006). As the merger-related change perceptions seldom originate from the actions of the direct leader, and are mainly elicited by managerial strategic decisions, we deduce that these change perceptions can act as a moderator (Du & Choi, 2013) in the relationship between authentic leadership and followers' job satisfaction. Merger-related change is linked to stress (Johnson & Sarason, 1979). However, the influence of this stress on followers' working life depends on how the change is perceived (Lazarus &

Folkman, 1984).

The cognitive-phenomenological model of stress (Lazarus & Folkman, 1984) suggests that it is employees' perceptions of the merger which determine whether it is stressful or not. Changes can be perceived as challenging and/or as threatening (Cavanaugh, Boswell, Roehling, & Boudreau, 2000). When perceived as a challenge, they will be seen as learning opportunities, and stimulate personal growth, but when perceived as a threat, they will be seen as barriers, and followers will have the feeling that they obstruct their working and personal development. From this perspective, we argue that both perceptions can influence the relationship between authentic leadership and job satisfaction.

Threatening changes have a negative association with job satisfaction (Verhaeghe et al., 2006). However, when those employees who perceive the changes this way experience a supporting supervisor, their perceptions do not necessarily lead to a lower level of well-being at work (Bakker, Demerouti, & Euwema, 2005). It seems there is an interaction between leadership style and those perceptions. We argue that when changes are perceived as highly threatening, followers will benefit from open, transparent and truthful communication (Kavanagh & Ashkanasy, 2006; Piper & Schneider, 2015). Threatening changes also elicit multiple questions, which should be answered (Armenakis & Harris, 2017). Authentic leaders are able to do this. Because of their open and transparent nature, they will meet their followers' clarification demands. They will reassure their followers about what is going to happen and will articulate clearly the vision and mission of the desired change (Knox & Irving, 1997). Moreover, the provision of this information, means that followers can better anticipate what is going to happen, even though they perceive these changes as threatening. They are also encouraged to communicate openly with their authentic leader, sharing and explaining how they feel about the changes. As a consequence, both leaders and followers acquire knowledge from each other which can be crucial in dealing with the changes. Authentic

leaders are empathetic (Mortier et al., 2016) and know what their followers need and require in times of high threat. They have a better understanding of followers' change perceptions. Moreover, they have strong internal moral values upon which they act (Avolio & Gardner, 2005). As a consequence, they do not act out of their self-interest (Kavanagh & Ashkanasy, 2006), but will rather try to do what is best for their followers. In addition, they can reduce followers' cynicism about change, and heighten their commitment to it (Alavi & Gill, 2017). During change, followers need the support of their direct leader (Rafferty & Griffin, 2006). Authentic leaders provide this and help their followers to deal with their negative change perceptions by providing them with resources (e.g. hope, resilience, self-efficacy) which can help them to cope with the threatening changes (Alavi & Gill, 2017; Wanberg & Banas, 2000). All these features contribute to higher levels of job satisfaction than among those who do not have an authentic leader. Therefore, when changes are highly threatening, authentic leadership will have a positive relationship with followers' job satisfaction and this will be stronger when followers perceive the changes as highly threatening.

Hypothesis 1: Threatening changes will moderate the positive relationship between authentic leadership and job satisfaction. Specifically, the relationship will be stronger when change is perceived as highly threatening.

Accordingly, challenging changes are positively associated to job satisfaction (Verhaeghe et al., 2006). An interaction between those perceptions and leadership style is also very much plausible in this context. When followers perceive the changes as highly challenging, it is up to their direct leader to motivate them to take on those challenges. Authentic leaders have high trust in the ethics and values of the organization (Whitehead, 2009). Thus, during organizational change, authentic leaders are committed to those changes. Through their transparency, they communicate this to their followers (Fry, 2003), who also internalize those values through positive modeling (Alavi & Gill, 2017). As a consequence, followers will

perceive the changes as meaningful and valuable and in combination with their challenging perceptions, they will be more motivated to adopt those changes. Because of this, they can exceed their initial performance expectations (Jung & Avolio, 2000), increasing their job satisfaction. The study by Monzani et al. (2015) indicated that authentic leaders offer these Pygmalion inducements: by creating positive emotional states they motivate followers to perform better in the future. Authentic leaders are also linked to the support of the development of basic need satisfaction in their followers (Leroy, Anseel, Gardner, & Sels, 2015). Their open attitude can increase followers' autonomy and autonomous motivation. They are aware of their personal values and encourage their followers to be likewise aware. As a consequence, when followers are faced with challenging work-related changes and have an authentic leader who fulfills their basic needs and supports them in meeting these challenges, they will report higher job satisfaction levels. Authentic leaders can also encourage followers to participate in the change when they feel that followers are challenged by it. As a consequence, followers will have the feeling that they are able to handle those challenges, which can result in an increase in job satisfaction. Thus, when changes are highly challenging, authentic leadership will have a positive elevating influence on followers' job satisfaction, implying a stronger relationship between authentic leadership and job satisfaction.

Hypothesis 2: Challenging changes will moderate the positive relationship between authentic leadership and job satisfaction. Specifically, the relationship will be stronger when change is perceived as highly challenging.

Summarizing, the aim of this study was to investigate whether the positive relationship between authentic leadership and job satisfaction one year later was moderated by the work-related change perceptions (threat and challenge) experienced by followers during this time lag. By including these change perceptions, we studied whether authentic leadership and its beneficial effects will help or sustain in a challenging or threatening context, thereby

revealing the potential value or drawbacks of leading in an authentic way during turbulent times.

Method

Context

The study was conducted in two smaller hospitals (one public, and one private) which were merging into one large-sized hospital. The merger had been rumored for a couple of decades, as both hospitals were located in the same geographical region, but it was not until five years before the start of the merger that the planning was outlined, after the national government had decided that in order to receive funding for a new building, the two hospitals had to merge. In 2012 they signed a merger protocol which stipulated that the two partners were equal. Management secured every employees' job, stating there would not be any layoffs and everyone would be needed in the merged hospital. However, hundreds were to be given different roles through redeployment of the departments and reallocation of staff. When the employment and wage conditions of the merged hospital were presented to the employees of both hospitals, 89% and 87% respectively accepted them.

The two-wave research design allowed us to study the prolonged associations between authentic leadership and followers' well-being. Aiming to capture those lagged effects, our study made use of a time-lagged design in which leadership was measured at the announcement of the merger, but before the process of merger had commenced and then, change perceptions and job satisfaction were measured one year later, at the time the merger was actually taking place.

The baseline (T1) measurement of the current study was completed on 1st Septem-

ber 2013, during the anticipatory phase of the merger (the merger protocol had already been signed but the merger agreement had not yet been formally presented by the hospital management to the employees). The follow-up (T2) measurement was completed exactly one-year later (1st September 2014), to make sure that there was enough time between the T1 and T2, and because T2 was right in the middle of the merger implementation phase. The merger was due to be completed before 1st January 2015.

Procedure and Sample

At baseline (T1), all registered nurses in both hospitals ($N = 960$) were invited to participate in the study and were given a paper version of the baseline questionnaire. A cover letter was attached to the questionnaire explaining the purpose of the study, as well as an informed consent form.

Questionnaires were distributed and collected through internal mail. Three-hundred-and-sixty completed questionnaires were returned. Two-hundred-and-seven of which indicated willingness to participate in our follow up study, provided informed consent and gave a formal employee number.

One year later, at follow up (T2), these 207 T1 participants were invited to participate in the study again. Ninety-nine of them returned their T2 questionnaire by means of a stamped-addressed envelope addressed to the first author of this paper, yielding a response rate of 47.8%, which can be considered acceptable (Baruch & Holtom, 2008). Inclusion criteria at T2 were: (1) being a registered nurse, (2) minimum work experience in the current hospital of 1 year, (3) being employed in a non-leading job at T1 and T2, and (4) maintaining the same nurse ward leader over the time-lag. All T2 participants provided their informed consent.

At both measurement points, voluntary participation was emphasized and confiden-

tiality was guaranteed. This study was approved by the medical ethics committees of the authors' university and the participating hospitals.

Following the procedure recommended by Twisk (2013), the potential effects of attrition in our two-wave data-set were assessed by a multiple logistic regression analysis. More specifically, we determined whether participation at T2 was related to any of the T1 variables under study by comparing continuing participants ($N = 99$) with T2 drop outs (i.e. nurses who did not participate at T2). Because neither the key T1 variable (authentic leadership) nor potential confounding variables (gender, age and education) predicted participation at T2 (OR_{age} 1.26, 95% (CI_{age}) [.99 - 1.62]; OR_{gender} 1.40, 95% CI [.66 - 2.94]; $OR_{education}$ 1.69, 95% CI [.70 - 4.07]; and $OR_{T1 \text{ authentic leadership}}$ 1.02, 95% CI [.99 - 1.05]), we concluded that attrition was not systematically related to the study variables.

The final sample that participated in both waves ($N = 99$) was 80.8% female. Age ranged from 20 to 60+ years, with 26.3% between 30 and 39 years old and a further 26.3% between 20 and 29 years old. Only 15.2% had a higher education qualification. On average, the nurses in our sample had 16.3 years' experience in the current hospital, with their years of total professional experience ranging from 1 year to 43 years. They came from 33 different wards, with 3 participating nurses per ward on average (range 1 - 9).

Measures

Control variables. As previous studies found evidence for the association between age (Clark, Oswald, & Warr, 1996), gender (Magee, 2015), and education (Fabra & Camisón, 2009), we controlled for these variables in our analyses. Additionally, we controlled for job satisfaction at T1 in order to investigate the change in job satisfaction and because job satisfaction at T1 was associated with job satisfaction at T2.

Authentic leadership. We chose to examine the assessment of followers about their leader, since self-reported ratings tend to be biased (Cullen, Gentry, & Yammarino, 2015). Moreover, since we examined an outcome among followers, we assumed that the perception of leaders' authentic leadership style by followers has a stronger impact on this outcome in comparison to that of the nurse ward leaders themselves. To measure authentic leadership, the 14-item Authentic Leadership Inventory (ALI) was applied (Neider & Schriesheim, 2011) at T1. A sample item of self-awareness was "My nurse ward leader describes accurately the way the others view his/her abilities"; for relational transparency: "My nurse ward leader objectively analyses relevant data before making a decision"; for balanced processing: "My nurse ward leader asks for ideas that challenge his/her core beliefs"; and for moral perspective: "My nurse ward leader shows consistency between his/her beliefs and actions". Followers rated their leader on a 5-point Likert scale for each item with anchors: "Totally disagree" and "Totally agree". To compose authentic leadership, the total scale score was calculated, resulting in a maximum score of 70. Cronbach alpha was .93 on T1.

Perceptions of work-related changes. Followers' perception of the work-related change they experienced during the time lag was measured at T2 for two different dimensions: negative change perception (threat) and positive change perception (challenge). To measure negative change perception, three items were used which have already demonstrated their validity in previous change perception research (Verhaeghe et al., 2006). A sample item was: "These changes ran counter to my personal objectives". Cronbach alpha was .83. To measure positive change perceptions, three items measuring change challenge were used (Verhaeghe et al., 2006). A sample item was: "I was convinced that these changes would provide new professional prospects". Cronbach alpha was .77. Followers rated their perceptions on a 5-point Likert scale with anchors: "Totally disagree" and "Totally agree". Total scale

scores were calculated for each of the two change perception dimensions. This resulted in a maximum score of 15 for both types.

Job satisfaction. To measure overall general job satisfaction, the 15-item scale of Warr, Cook, and Wall (1979) was used. An example item was: "Indicate how satisfied or dissatisfied you are with your physical working conditions". Cronbach alpha was .88 on T1 and .91 on T2. Followers rated their job satisfaction on a 7-point Likert scale with anchors: "Totally unsatisfied" and "Totally satisfied". The maximum score of general job satisfaction was 105.

Each of the three scales described above was translated into the participants' native language using the back-translation method (Brislin, 1970) and presented to them in this form.

Data Analysis

Data analysis was performed with IBM SPSS Statistics, version 22, using the PROCESS macro (Hayes, 2013). Results were considered statistically significant at $p \geq .05$ level level.

Linear models were performed using 5000 bootstrapped samples. Bootstrapping is a resampling method with replacement that reproduces the sampling distribution of any test statistic (Schumacker & Tomek, 2013) and allows us to obtain information such as confidence intervals that would otherwise not be available (Wood, 2004). Both authentic leadership and change perceptions were centered.

Heteroscedasticity was taken into account. We controlled for age, gender, education and job satisfaction measured at T1 (see above). A two-step approach was used: in the first step, the control variables and centered authentic leadership and change perceptions were entered. In the second step, the interaction term was entered to investigate its incremental validity (R^2).

Results

Table 5.1 displays the means, standard deviations, correlations and internal consistencies of the measures in this study. There was a strongly positive correlation between T1 authentic leadership and job satisfaction at T1 ($r = .49$) and T2 ($r = .37$). Job satisfaction measured at baseline was strongly positively related to T2 job satisfaction ($r = .54$). Additionally, T2 job satisfaction was negatively related to negative change perceptions (threat: $r = -.52$). A significant correlation was found between T2 job satisfaction and positive change perceptions (challenge: $r = .26$). Finally, the correlation between authentic leadership and the two moderators was significant (change threat: $r = -.21$, change challenge: $r = .27$).

Table 5.1. Means, standard deviations, Pearson correlations and internal consistencies of the studied variables.

	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. T1. Job Satisfaction	72.80	9.44	(.88)				
2. T1 Authentic Leadership	48.39	8.92	.49**	(.93)			
3. T2 Job Satisfaction	70.14	11.63	.54**	.37**	(.91)		
4. T2 Change Threat	8.67	2.59	-.43**	-.21*	-.52**	(.83)	
5. T2 Change Challenge	9.12	2.14	.33**	.27*	.26*	-.41**	(.77)

Note. * $p < .05$; ** $p < .01$. Internal consistency reliabilities (a) are shown on the diagonal, N ranges from 95-99 due to missing data

Testing hypothesis 1: perceived threatening work-changes. Results showed that control variables, T1 authentic leadership and T2 perceived change threat were associated with T2 job satisfaction ($F(7, 85) = 27.74, p < .001, R^2 = .50$). The control variable T1 job satisfaction was a significant predictor of T2 job satisfaction ($b = .50, t(85) = 2.97, p < .01$ see Table 5.2): high levels of job satisfaction at T1 were associated with high levels of job satisfaction at T2. Additionally age was also marginally significantly associated to T2 job

satisfaction ($b = 1.35$, $t(85) = 2.04$, $p < .1$).

Results of the first interaction are represented in Table 5.2. Main effect of authentic leadership measured at T1 was no significant predictor of job satisfaction at T2 ($b = 0.06$, $t(85) = .45$, $p > .1$). However, there was a strong negative association between the negative perceptions of change and T2 job satisfaction ($b = -1.47$, $t(85) = -4.03$, $p < .01$), indicating that perceiving work-related changes as threatening was associated with less job satisfaction. Additionally, the interaction between change threat and T1 authentic leadership was significant ($b = 0.05$, $t(85) = 2.16$, $p < .05$) and explained 1.2% incremental variance in the model ($F(1,85) = 4.69$, $p < .05$), indicating the combination of perceived low authentic leadership and high threatening work-changes resulted in the lowest job satisfaction (see Figure 5.1).

Next, simple slopes were analyzed to determine the conditional effect at low and high levels of negative change perceptions (Dawson, 2014). Results showed that, for low negative change perception, there was no relationship between authentic leadership and job satisfaction ($b = -.14$, $t(85) = -0.66$, $p > .1$). However, for high negative change perception, every unit of perceived authentic leadership resulted in an increase in job satisfaction ($b = .25$, $t(85) = 2.10$, $p < .05$).

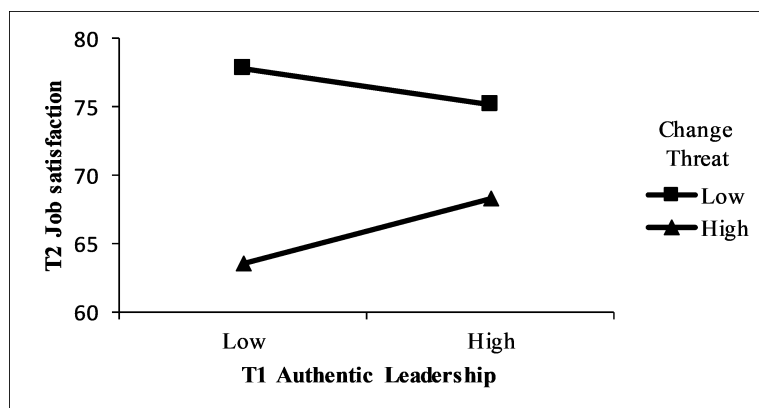


Figure 5.1. Simple slopes equations of the regression of T2 job satisfaction on T1 authentic leadership at high and low levels of negative perceptions of work changes.

Table 5.2. Linear model of T2 job satisfaction on control variables, T1 authentic leadership, T2 negative perception of change (change threat), and their interaction.

Predictor	<i>b</i>	se <i>b</i>
Constant	29.22** [8.80, 49.65]	10.27
Control Variables		
- Age	1.35 ^φ [-0.03, 2.74]	0.70
- Gender [†]	3.18 [-4.47, 10.83]	3.85
- Education ^ω	3.47 [-1.25, 8.20]	2.38
- T1 Job Satisfaction	0.50** [0.17, 0.84]	0.17
T1 Authentic Leadership (centered)	0.06 [-0.18, 0.30]	0.12
Change Threat (centered)	-1.47** [-2.22, -0.73]	0.38
Authentic leadership x Change Threat	0.05* [-0.01, 0.09]	0.02

Note. ^φ $p < .10$; * $p < .05$; ** $p < .01$. [†]0 = male, 1 = female. ^ω0 = lower education, 1 = higher education (college or higher degree). The values in the table are the unstandardized regression weights (*b*). $N = 360$. $R^2 = .50$.

Testing hypothesis 2: perceived challenging work-changes. The results of the second interaction are represented in Table 5.3. Control variables, T1 authentic leadership and T2 perceived change challenge were associated with T2 job satisfaction ($F(7, 84) = 12.88$, $p < .001$). The control variable job satisfaction at T1 was a significant predictor of job satisfaction at T2 ($b = .66$, $t(84) = 4.37$, $p < .01$): high levels of job satisfaction at T1 were associated with high levels of job satisfaction at T2.

Table 5.3. Linear model of T2 job satisfaction on control variables, T1 authentic leadership, T2 positive perception of change (change challenge), and their interaction.

Predictor	<i>b</i>	se <i>b</i>
Constant	17.78 ^φ	9.04
	[-.20, 35.77]	
Control Variables		
- Age	1.27	0.85
	[-0.43, 2.97]	
- Gender [†]	3.86	4.55
	[-5.19, 12.90]	
- Education ^ω	2.80	2.71
	[-2.58, 8.18]	
- T1 Job Satisfaction	0.66**	0.15
	[0.36, 0.95]	
T1 Authentic Leadership (centered)	0.06	0.14
	[-0.22, 0.33]	
Change Challenge (centered)	0.25	0.51
	[-0.77, 1.27]	
Authentic leadership x Change Challenge	-0.06 ^φ	0.03
	[-0.15, 0.01]	

Note. ^φ $p < .10$; * $p < .05$; ** $p < .01$. [†]0 = male, 1 = female. ^ω0 = lower education, 1 = higher education (college or higher degree). The values in the table are the unstandardized regression weights (*b*). $N = 92$. $R^2 = .39$.

Main effect of authentic leadership measured at T1 was not a significant predictor of job satisfaction at T2 ($b = 0.06$, $t(84) = 0.42$, $p = .67$). There was also no significant association between positive change perceptions and T2 job satisfaction ($b = 0.25$, $t(84) = 0.47$, $p = .64$). However, the interaction between change as challenge and T1 authentic leadership was marginally significant ($b = -0.06$, $t(84) = -0.06$, $p = .091$ - see Figure 5.2) and explains 1.7% incremental validity in the model ($F(1, 84) = 2.92$, $p = .09$).

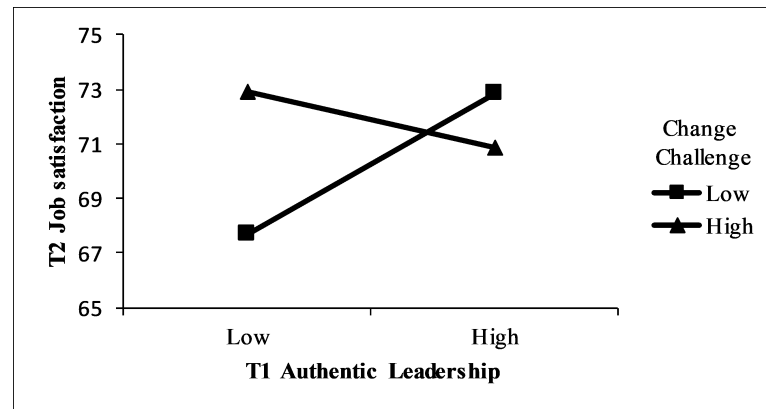


Figure 5.2. Simple slopes equations of the regression of T2 job satisfaction on T1 authentic leadership at high and low levels of positive perceptions of work changes.

Since we found a marginally significant effect, simple slopes were analyzed to determine the conditional effect at low and high levels of positive change perceptions (Dawson, 2014). Results showed no relationship between authentic leadership and job satisfaction either for low positive change perceptions ($b = .27$, $t(84) = -1.58$, $p > .1$) or for high positive change perceptions ($b = -.11$, $t(84) = -.50$, $p > .1$).

Discussion

This study linked authentic leadership, job satisfaction and work-related change perceptions in the context of an organizational merger using a two-wave design. Specifically, our goal was to investigate the influence of authentic leadership on job satisfaction and the moderating role of followers' change perceptions on this relationship. The outcome of this study extends our understanding of change strategies because the extent to which followers are satisfied with their job is an indication of their adjustment to merger entailed changes (Amiot et al., 2006). Thus, our results point to several important findings that contribute to the areas of organizational change, authentic leadership theory and followers' well-being.

Theoretical Implications

The current study contributes to filling the void in leadership research by including organizational variables in the investigation of authentic leadership. As Avolio and Gardner (2005) pointed out, when conducting leadership research it is important to incorporate organizational context. Building upon existing research and authentic leadership theory (Avolio & Gardner, 2005) and the cognitive-phenomenological model of stress (Lazarus & Folkman, 1984), we hypothesized that change perceptions may influence the relationship between authentic leadership and job satisfaction. Whereas previous research found evidence of the positive association between authentic leadership and followers' job satisfaction (e.g. Azanza et al., 2013; Cerne et al., 2014; Wong & Laschinger, 2013), the present study suggests this relationship holds when work-related changes are perceived as threatening in an organizational merging context.

Consistent with our first hypothesis, authentic leadership was directly positively related to job satisfaction when followers perceived change as highly threatening. In contrast, for followers who perceived change as only slightly threatening, the positive relationship between authentic leadership and job satisfaction was diminished. Our results thus indicate that followers will be more satisfied with their job if they perceived their leader as authentic one year before the turbulent times started. This could be because authentic leaders are aware of their environment (Avolio & Gardner, 2005) and realize the possible implications of an organizational merger for themselves and their followers (Hogg, 2011). For example, changes and mergers bring new techniques and skills with them, so that followers need to adjust their work behavior, and give up techniques they were good at. As a consequence, these changes can be seen as highly threatening. When this happens, authentic leaders, being highly empathetic (Mortier et al., 2016) can sense that their followers feel threatened and

communicate their moral values and ethics (May, Chan, Hodges, & Avolio, 2003). Followers sense this, and will feel their leader is doing the best s/he can and they know what to expect. As a consequence, followers who perceived their leader as authentic, will report higher job satisfaction when perceiving threatening changes. On the other hand, when followers do not perceive the changes as particularly threatening, there is little need for the leader "to take care of the situation" or put their followers more at ease. Therefore, the higher reported job satisfaction of these followers is more independent of the authenticity of their leader.

Our study also contributes to the literature of organizational change. Most previous research indicate that when followers have negative perceptions towards organizational change, negative outcomes for both employees and the organization result (e.g. Sverdlik & Oreg, 2015; Oreg, 2006). In contrast, Kiefer (2002) argued that these negative perceptions do not always result in negative consequences. Our study has found support for this latter point of view. If followers have negative change perceptions, an authentic leader can make a difference. Indeed, those followers who reported perceiving their leader as highly authentic, also reported a higher level of job satisfaction, even if they perceived the work-related changes as threatening.

The added value of authentic leadership in turbulent times might also be explained by the contagious quality of authenticity. In times of organizational turbulence, authentic leaders transform their followers into authentic followers (Avolio & Gardner, 2005) using an automatic and unconscious transfer of their authenticity and emotions. Authentic leaders develop their authentic followers by acting as a positive role model (May et al., 2003), and through increased self-awareness and self-regulation (Avolio & Gardner, 2005). As a consequence, authentic followers contribute to the relationship with their leader, and are not just on the receiving end (Leroy et al., 2015). In this open relationship, followers' self-knowledge will be developed, leading to an internalization of the group and organizational

core values (Ford & Harding, 2011). This in return will have a positive impact on their job satisfaction (Valentine, Godkin, Fleischman, & Kidwell, 2011). Therefore, even though followers perceive the changes in their work organization as negative, they recognize that these changes will benefit the group or organization and thus perceive them as a necessary evil, knowing that in the end, they will result in a better work environment and enhanced organizational efficiency (Kjekshus & Hagen, 2007).

On the other hand, we did not find a moderating effect on the relationship between authentic leadership and job satisfaction of challenging change perceptions. It seems that neither positive change perceptions nor authentic leadership has a significant association with followers' job satisfaction when also controlling for baseline level job satisfaction. Therefore, it seems that when taking positive change perceptions into account, baseline job satisfaction plays a larger role than negative change perceptions.

An alternative explanation for our finding of a non-significant interaction between authentic leadership and positive change perceptions might be that this association was suppressed because of unmeasured variables which are not shaped by or fully under the control of followers' direct leader. Indeed, previous research has shown that followers' job satisfaction is dependent not only on the type of leadership or merger related changes, but also on individual (e.g. demographics), work (e.g. work demands, work resources) and organizational (e.g. organizational change climate) variables (Bowling, 2013).

Finally, the design of our study allowed us to investigate the longer-term association between authentic leadership and followers' well-being and showed that the prolonged positive association of authentic leadership can last at least one year. Additional studies should investigate whether authentic leadership has associations in the even longer term. As Shamir (2011) cautions, time-lags should not be generalized. Associations that are found in a one-year time lag cannot be generalized to a broader or a shorter time period. Moreover, au-

thentic leadership can have different relationships in different time periods. For instance, its role might differ throughout the different phases of a merging process.

Practical Implications

Given the results of our study, we would recommend organizations invest in authentic leadership programs, especially before (drastic) changes in the organization occur. It is without doubt that mergers provoke a great deal of anxiety and conflict when the merging organizations differ in their status (Datta, 2000), which might result in lower performance (Ivancevich, Schweiger, & Power, 1987). Our study and previous literature indicates that authentic leaders are important facilitators of organizational change by being supportive (Oreg, Vakola, & Armenakis, 2011), determining strategies (Barratt-Pugh, Bahn, & Gakere, 2013), and communicating change (Hannah, Uhl-Bien, Avolio, & Cavarretta, 2009). When facing a new organizational identity, followers need an authentic leader to help communicate the organizational goals and identify themselves with these goals. It is the role of an authentic leader as good change manager to guide their team smoothly through the merging process.

Additionally, although not directly investigated here, it can be argued that encouraging authentic leadership can also be beneficial when other types of changes occur in the workplace (e.g. minor changes). These changes also require transparent communication, trust in the leader, and a supportive work environment and followers in these contexts should thus also benefit from an authentic leader. Indeed, Verhaeghe, Vlerick, De Backer, Van Maele, and Gemmel (2008) show that leadership support mitigates the detrimental effect of negative change perceptions of work-related changes in the work environment on feelings of distress in followers.

Finally, as already noted above, our study provides evidence of the long-term positive influence of authentic leadership on followers' job satisfaction. Therefore, we assume that

a long-term focus on developing leaders' authenticity is not only important for managing change at work, but might also be a promising pathway towards developing and maintaining psycho-social well-being at work. Developing leaders' self-awareness, increasing their relational transparency and awareness of ethical values, and learning to balance their information processing and decision making are essential ingredients of this leadership development process.

Strengths and Limitations

From a methodological perspective, the major strength of our study is the separation between predictor and response variable through a one-year time lag. This helped us to reduce the potential bias resulting from common method variance (Podsakoff, MacKenzie, & Podsakoff, 2012). We chose to measure the moderator variable and outcome variable simultaneously. This, however, should not impact our results, since common method variance introduces bias that attenuates (not inflates) the strength of the parameter tests in moderation tests (Podsakoff et al., 2012). Nevertheless, a limitation of this study is that we cannot account for the influence of non-modeled antecedents of job satisfaction, or for changes in the variables over the one-year period of the study.

Additionally, using a time-lagged study made it subject to respondent attrition. As a result, we obtained a limited sample size. Even though our drop-out analysis showed no significant differences, it might be the case that the respondents who remained in the study across the two time periods differed slightly in terms of their job satisfaction and their relationship with their leader from those who did not. Therefore, future research should be conducted to replicate our findings.

An additional limitation is that our study was conducted on a single organizational merger, raising the possibility of organization-specific bias. We suggest future studies to try

to generalize our findings to non-health care settings. The added value of authentic leadership in the context of other types of organizational changes (e.g. organizational downsizing) should also be investigated.

A further observation, we used followers' perspectives on authentic leadership, since we assumed that their perception will have a stronger influence on their well-being than leaders' own rated perception. Indeed, there can be a difference in self- and other ratings (Yammarino & Atwater, 1993). Given this difference, it is possible that using leaders' perspectives would yields different results.

Finally, our study focused on job satisfaction, which is a distal subjective outcome. This outcome was investigated since it is associated with organizational success even in times of merging (Amiot et al., 2006). While using a distal outcome is not a strict limitation in itself, we encourage future research to examine more proximal or objective work outcomes (e.g. turnover, performance) in order to establish the range of effects of authentic leadership in followers and other organizational stakeholders (e.g. clients).

Conclusion

Our two-wave study revealed the moderating effect of work-related change perceptions on the relationship between authentic leadership and employees' job satisfaction. Specifically, the lagged positive relationship between perceived authentic leadership and followers' job satisfaction one year later only holds when followers perceive the work-related changes, experienced during this time-lag, as threatening, even after controlling for baseline job satisfaction. It seems that authentic leaders create a psychologically secure environment in which employees can cope with threatening work-changes without loss of job satisfaction. Therefore, we encourage leaders to lead in an authentic way in turbulent times of change.

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6 | General Discussion

This final chapter provides a summary and critical reflection of the main findings from the empirical studies presented in Chapter 2 through Chapter 5. The six research objectives (see Chapter 1) will guide this summary and reflection. The six research objectives were (1) to study the reliability and factorial validity of the Dutch version of the Authentic Leadership Inventory, (2) to identify a potential antecedent of authentic leadership, (3) to study different well-being outcomes related to authentic leadership, (4) to study the mediating mechanisms in the relationship between authentic leadership and followers' outcomes, (5) to investigate a potential moderator in the relationship between authentic leadership and followers' well-being, and (6) to study whether authentic leadership in itself can be a mediator in relation to followers' well-being. Furthermore, the strengths and limitations of this dissertation are acknowledged and direction for future research are identified. Next, an overview of theoretical and practical implications is given. Finally, the dissertation is summarized in an overall conclusion.

Research Overview

Across five chapters we presented four empirical studies to address the six research objectives described before. Addressing these objectives, the present dissertation contributes to the authentic leadership and followers' well-being literature by gaining a more profound knowledge of how authentic leadership is associated with followers' well-being and what the explaining and moderating variables are in this relationship. This knowledge may guide practitioners on developing or adjusting their company policy in order to maintain or heighten followers' well-being at work. Below, we will take a closer look at how these six research objectives were realized in the present dissertation, and we discuss the major findings resulting from this line of research.

Overview Research Questions

First research objective: To investigate whether the Dutch version of the ALI was a reliable and valid measure of authentic leadership in the Flemish context.

Followers' well-being at work, the overarching theme of this current dissertation, is conceptualized as a wide range of outcomes in this dissertation. Because of this, it is measured in the empirical studies using different outcomes, allowing to provide an overall image of followers' well-being. In contrast with this, this dissertation made use of another variable which was held constant over all the empirical chapters, namely authentic leadership. Given the recurring use of authentic leadership throughout the dissertation and as no measurement scale was available in Dutch to measure the concept in a Flemish context, the first aim of this dissertation was to develop a valid and reliable measure to study authentic leadership. This measure could then be used in the forthcoming chapters.

The study presented in *Chapter 2* made use of the original English version of the Authentic Leadership Inventory (ALI), as developed by Neider and Schriesheim (2011). The main aim was to replicate the factor structure in the Dutch ALI version that has been found in previous studies in the American or British context. In this chapter, three factor structures were proposed in line with the study of Neider and Schriesheim (2011): (1) a one-factor structure with all items loading on a latent factor, neglecting the four theoretical dimensions of authentic leadership, (2) a second order model, with all items loading on their respective theoretical implied dimension of authentic leadership (i.e. self-awareness, relational transparency, balanced processing and moral perspective), which in their turn, loaded on a second order latent variable, implying the overarching construct of authentic leadership, and (3) a covarying model, with all items loading on their respective theoretical implied dimension of authentic leadership (i.e. self-awareness, relational transparency, balanced processing and moral perspective). However, in contrast to the previous model (model 2), those four latent variables covaried with each other, and thus did not acknowledge authentic leadership as an overarching construct, but rather as a representation of those four dimensions solely.

Our results demonstrated that, for followers in a Flemish context, the results of Neider and Schriesheim (2011) could be replicated: we found support that the second-order model was the best fitted model for our data. Moreover, our results could be replicated in an independent but similar sample of followers, which adds to the robustness of this model. Even though fairly limited in its execution, this chapter is still fundamental to this dissertation, since it provides us evidence on how authentic leadership style should be taken into account in further studies in this dissertation and future studies as a whole. As we found empirical support for the second order model in two independent samples of followers, authentic leadership style can be treated as a latent overarching concept, with additional hypotheses formulated on the dimensional level. However, since we wanted to investigate the influence

of the entire concept, and not its dimensions, we considered authentic leadership as a total construct in the following studies.

Second research objective: To identify a potential antecedent of authentic leadership. Previous research on antecedents of authentic leadership is rather scarce. Up until now, only a limited amount of studies have found either empirical support for such antecedents (e.g. psychological capital – Jensen & Luthans, 2006) or theoretical support (e.g. self-knowledge and self-consistency – Peus, Wesche, Streicher, Braun, & Frey, 2012). In order to contribute to the development and enhancement of both authentic leadership and followers' well-being, this dissertation introduced leaders' attachment style as a potential antecedent and aimed to find empirical support for this relationship.

In the multi-source study in *Chapter 3* we studied whether leaders' attachment style was negatively related to authentic leadership. Since attachment style is influenced by leaders' personal history, this style can contribute to (or prevent) leaders' authenticity (Hinojosa, Davis McCauley, Randolph-Seng, & Gardner, 2014). More specifically, we hypothesized that leaders' avoidant attachment style would be negatively related to their authentic leadership style, since those leaders will lack the expression of their vulnerabilities and emotions (Neff & Harter, 2002), which discourages their authenticity (Gillath, Sesko, Shaver, & Chun, 2010; Gouveia, Schulz, & Costa, 2016). Our hypothesis was supported in the study presented in *Chapter 3*. In this study, leaders with an avoidant attachment style, which is mainly focused on independence and avoidant behavior, seem to be perceived as less authentic by their followers. Indeed, leaders with such an attachment style can be more protective of themselves and will not communicate how they feel. Consequently, they might be perceived as less authentic (Lemay & Clark, 2008). These findings are in line with the previously argued theoretical framework by Hinojosa et al. (2014).

To summarize, the study presented in *Chapter 3* provides empirical evidence that leaders' personal history likely has an impact on leaders' authentic leadership style. We demonstrated that the attachment theory provides a useful perspective to understand leaders' previous life experiences and how it is associated to their authentic leadership style.

Third research objective: To study potential well-being outcomes of authentic leadership. As argued in *Chapter 1*, followers' well-being at work remains an important topic that, given its important implications and consequences, should still be studied. For example, followers' impaired well-being is linked to anxiety, stress, and depression (European Agency For Safety And Health At Work., 2014). Therefore, the current dissertation studied followers' psychological individual level well-being. Specifically, we focused on (1) the work itself (i.e. thriving), (2) contextual factors of the job (i.e. job satisfaction), and (3) self-development (i.e. authentic followership). Together, these three outcomes provide a broad perspective of followers' well-being at work. Additionally, since followers' direct leader plays an important role in followers' psychosocial work environment (Sparks, Faragher, & Cooper, 2001), the current dissertation focused on the association between authentic leadership style and followers' well-being. There is already evidence for the positive association between authentic leadership and followers' well-being (see Table 1.1). As a consequence, this dissertation further investigated these associations by studying an outcome which is already quite established in the literature (i.e. job satisfaction), one which has theoretical underpinning, but only with limited empirical support (i.e. authentic followership), and one which has not been linked to authentic leadership so far (i.e. thriving). Therefore, this dissertation tried to broaden the understanding of the association between authentic leadership and followers' well-being by focusing on a broad perspective of well-being outcomes.

In *Chapter 3*, the association between authentic leadership and authentic followership

was studied. It has been argued that authentic leaders stimulate authentic followers' development (e.g. Leroy, Anseel, Gardner, & Sels, 2015; Shamir & Eilam, 2005), by increasing their self-awareness and self-regulation (Gardner, Avolio, Luthans, May, & Walumbwa, 2005). In this study, we found evidence for the positive association between authentic leadership and authentic followership. More specifically, our study showed that when leaders are perceived as less authentic, authentic followership will not be encouraged. It seems that when followers perceive their leader as less authentic, this undermines the relationship between leader and follower. As a result, followers are not stimulated to develop themselves, and are not exploring their own emotions, motives, and feelings. Thus, this study seems to indicate that authentic leadership is associated with followers' well-being in terms of self-development.

Next, in *Chapter 4*, the association between authentic leadership and thriving was studied. Thriving has two components: vitality and learning (Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, 2005). Therefore, this well-being component is focused on the work itself. The study in *Chapter 4* gives evidence for the positive association between authentic leadership and both components of thriving (vitality and learning). Our findings are in line with earlier studies, which demonstrate the influence of leadership on employees' learning behavior and motivation to learn (Loon, Lim, Lee, & Tam, 2012). Moreover, our results confirm the positive relationship between leadership and vitality (Hamilton & Schriesheim, 2001). More specifically, these results strengthen the established understanding that authentic leadership has a positive impact on positive work outcomes focused on the work itself such as thriving (i.e. Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Carmeli, Ben-Hador, Waldman, & Rupp, 2009).

Finally, the study in *Chapter 5* tried to replicate the established positive relationship between authentic leadership and followers' job satisfaction (e.g. Azanza, Moriano, & Molero, 2013; Cerne, Dimovski, Maric, Penger, & Skerlavaj, 2014; C. A. Wong & Laschinger, 2013).

However, the added value of this study was the merging context, which could be a potential moderator in this relationship (see next research question). Our study expands the current knowledge, since results demonstrated that authentic leadership was significantly positively associated with followers' job satisfaction, only when they perceived the changes as high threatening. This could be because authentic leaders are aware of their environment (Avolio & Gardner, 2005) and realize the possible implications of an organizational merger for themselves and their followers (Hogg, 2011) when the changes are perceived as threatening. On the other hand, when followers do not perceive the changes as particularly threatening, there is little need for the leader "to take care of the situation" or put their followers more at ease. Therefore, followers will always report higher levels of job satisfaction, independent of the authenticity of their leader. Moreover, because this study made use of a lagged design (authentic leadership was measured a year before followers' job satisfaction was measured), this study gave evidence in favor for the long-term positive association of authentic leadership on followers' job satisfaction, and thus their well-being. To summarize, the results of this chapter provided evidence for the positive lagged relationship between authentic leadership and followers' job satisfaction when followers' perceive work-related changes as threatening.

To conclude this research question, *Chapter 3*, *Chapter 4*, and *Chapter 5* have demonstrated, using different samples and contexts, the positive association between authentic leadership and followers' well-being at work. This relationship found support on three levels: authentic leadership is positively associated with followers' well-being focused on followers' self-development (*Chapter 3* – authentic followership), is positively associated with followers' well-being focused on the work itself (*Chapter 4* – thriving), and is positively associated with followers' well-being focused on the contextual factors of the job (*Chapter 5* – job satisfaction). Since these three well-being outcomes provide a broad spectrum of followers' well-being, we can conclude that authentic leadership seems to be positively linked to this

broad spectrum of followers' well-being at work. Therefore, authentic leadership plays an important role in the broad perspective of followers' well-being at work.

Fourth research objective: To investigate a potential mediating mechanism in the relationship between authentic leadership and followers' well-being. The study in *Chapter 4* investigated whether leaders' empathy can be an explaining variable in the relation between authentic leadership and followers' thriving at work. Based on the premises that authentic leaders are more self-aware, and thus are more aware of their own emotions, we assume they are also more susceptible to the emotions of others. Therefore, they will be perceived as empathic, which results in an increase in followers' thriving at work. Since thriving is composed of a cognitive component (i.e. learning) and an emotional component (i.e. vitality), the analyses were conducted on the separate dimensions of thriving.

Our results showed that leaders' empathy only mediated the relationship between authentic leadership and followers' well-being when the vitality component of thriving was considered. No mediation was present in the relationship between authentic leadership and followers' learning. The results seem to indicate that authentic leaders, showing empathy towards their followers, might strengthen the relationship between leader and follower, and can elicit more positive feelings in the work environment (C. Wong & Law, 2002), such as vitality. However, considering the learning component of thriving, leaders' empathy did not explain its positive relationship with authentic leadership. This can be explained by followers' colleagues. When dealing with work related problems, maybe followers are more inclined to seek and find help in their peers or colleagues than in their direct leaders. As a consequence, it could be that peers' empathy, and more broadly, the social support of colleagues, mediates the relationship between authentic leadership and followers' learning.

Given these results, it seems that authentic leaders' empathy only mediates the rela-

tionship between the emotional component (i.e. vitality) of thriving. Thus, both leaders' authenticity and their empathy seems important for followers' emotional well-being at work. As such, this dissertation adds to the authentic leadership and emotion literature by providing evidence in favor for the full mediation of authentic leaders' empathy on followers' well-being at work.

Fifth research objective: To investigate a potential moderator in the relationship between authentic leadership and followers' job satisfaction. The aim of the study presented in *Chapter 5* was to study whether the positive relationship between authentic leadership and followers' job satisfaction still holds in a changing work environment. In order to study this, we made use of two hospitals who were merging into one larger hospital. All employees were exposed to the merger and could be personally affected by its implications. Thus, the merger elicited change perceptions amongst these employees. In line with Lazarus and Folkman (1984), two different types of change perceptions were distinguished: challenging versus threatening change perceptions. More specifically, we investigated how these different change perceptions influenced the relationship between authentic leadership and followers' job satisfaction.

Our results indicated that the relationship between authentic leadership and followers' job satisfaction only holds when work-related changes are perceived as threatening in an organizational merging context. This was not true for challenging work-related change perceptions. Thus, trying to answer our fifth research question, we only found evidence in favor for the moderating effect of threatening change perception in this relationship. Whenever followers experienced high threatening changes during the merger, the lagged relationship between authentic leadership and followers' job satisfaction was strongly positive. When followers had little threatening change perceptions, the association between authentic leader-

ship and followers' job satisfaction was diminished. These results could be explained because authentic leaders are aware of their environment (Avolio & Gardner, 2005) and realize the possible implications of an organizational merger for themselves and their followers (Hogg, 2011). They communicate this to their followers, and are willing to deal with the situation. As a consequence, followers who perceive their leader as highly authentic, will experience more well-being at work (i.e. job satisfaction). These results suggest that in times of major work changes (such as an organizational merger) which are perceived by followers as threatening, authentic leadership might help to ameliorate followers' job satisfaction during these turbulent times.

Sixth research objective: To investigate the potential mediating role of authentic leadership in itself. Our study presented in *Chapter 3* aimed to investigate whether authentic leadership style could mediate or explain the relationship between leaders' avoidant attachment and authentic followership. Our results found evidence to support this hypothesis. As previously mentioned, avoidant attachment style is negatively related to authenticity (La Guardia, Ryan, Couchman, & Deci, 2000; Lemay & Clark, 2008) and theoretically linked with authentic leadership (Hinojosa et al., 2014). Additionally, leaders' avoidant attachment style seems to undermine their relationship with their followers (Davidovitz, Mikulincer, Shaver, Izsak, & Popper, 2007) which results in less authentic followership (Hinojosa et al., 2014). The relationship between avoidant attachment style and authentic followership can be explained by authentic leadership. More specifically, leaders who do not want to have close relationships with others or do not want to be dependent on others (i.e. have an avoidant attachment style) might be perceived as less authentic (Lemay & Clark, 2008) and as a less authentically behaving leader by their followers. This in turn, will not benefit the relationship with their followers, suppressing their development of authentic followership. Therefore,

the study presented in *Chapter 3* has provided evidence that leaders' personal history can have an influence on follower' well-being at work. More specifically, leaders' previous life and interpersonal experiences are associated with followers' self-development at work.

Strengths, Limitations, and Directions for Future Research

Since followers' (and employees') well-being is still an important topic (European Agency For Safety And Health At Work., 2014), academic empirical studies, health strategies and policies should still focus on maintaining or increasing followers' psychological well-being at work. Additionally, followers' direct leaders have a direct impact on their followers' well-being (e.g. Kuoppala, Lamminpää, Liira, & Vainio, 2008; Landeweerd & Boumans, 1994; Tepper, 2000). Throughout the dissertation we generated scientific knowledge regarding the relationship between authentic leadership and followers' well-being. Therefore, the current dissertation adds to both the leadership and the well-being literature.

Some specific strengths of the current doctoral dissertation are worth mentioning. Firstly, the current doctoral dissertation made use of four empirical studies which investigated six different research questions. The guiding theme of the current dissertation, followers' well-being and authentic leadership style (Research Question 1 through 6), was investigated in four empirical studies (*Chapter 2 through 5*). Next, it made use of both cross-sectional (*Chapter 2, 3, and 4*) and a time-lagged design (*Chapter 5*), homogeneous (*Chapter 3 and 5*), as well as heterogenous samples (*Chapter 2 and 4*), and different analytical strategies to analyze the data (i.e. hierarchical regression analysis and structural equation modeling). Lastly, all of the empirical chapters made use of real world samples, instead of the easier accessible student samples.

In spite of these strengths, this overall dissertation has a number of limitations which need to be acknowledged in addition to the ones that are discussed in each chapter. Six main limitations of the studies in the present doctoral dissertation are discussed.

First, all of the well-being outcomes were questioned at the followers' level, which means that this outcome was studied using self-report. This was done because well-being is a personal concept, which is better understood by the person experiencing this, in comparison to another external party who cannot grasp what that person is experiencing. In line with this, in *Chapter 4 and 5*, all measures were at the followers' level. Because of common method variance, this might have led to an overestimation of the size of the relationships (Semmer, Gregner, & Elfering, 2003). However, the influence of common method variance is not as high as could be expected (Spector, 2006) and is not a simple explanation of finding significant results. Furthermore, in *Chapter 5*, we made use of a temporal separation of measurement, which is seen as a prevention of common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Second, *Chapter 3 and 4* made use of a cross-sectional research design. Because of this, we cannot make causal interpretations. However, *Chapter 5* made use of time-lagged design, but this is not sufficient to claim causality, since the positive relationship between authentic leadership and followers' job satisfaction can also be explained by other causes which were not taken into account. Therefore, future research should focus on randomized experiments so that the causal claim between (authentic) leadership and followers' well-being can be supported (Antonakis, Bendahan, Jacquart, & Lalive, 2010).

Third, driven by the upcoming positive psychology approach (Seligman & Csikszentmihalyi, 2000), the present dissertation focused on positive followers' well-being outcomes (i.e. authentic followership, thriving, and job satisfaction). Because of this, we did not investigate the association between authentic leadership and negative well-being outcomes, such as stress

and turnover intentions. Since these indicators of work-related unwell-being have adverse associations with both followers'/employees' outcomes (i.e. sickness leave - Vaez, Rylander, Nygren, Asberg, & Alexanderson, 2007) and outcomes related directly to their company (i.e. financial loss – Bruhn, 2015), future studies should also investigate how authentic leadership relates to those outcomes and what the mediating and moderating variables are in these relationships.

Fourth, this dissertation only identified one antecedent, moderator and mediator in the context of authentic leadership. Thus, in each of these domains (antecedents, moderators, and mediators), its contribution is relatively limited. However, as mentioned in *Chapter 1*, the focus of the dissertation was to provide a broad overview and to (further) study the nomological network of authentic leadership and followers' well-being. Therefore, we opted to only study one potential variable in each of those three categories.

Fifth, all authentic leadership measurements and followers' well-being outcomes were studied at the individual level, implying our results cannot be generalized to other levels (Kozlowski & Klein, 2000). Therefore, further studies should look how authentic leadership is associated to work-related well-being at the meso-level (e.g. team perceived leadership and the influence on team well-being) or even macro-level (e.g. organizational culture and how this reflects leadership and followers' well-being).

Sixth, this dissertation did not aim to investigate the difference between authentic leadership style and other leadership styles, since this is an entire literature on its own and not the goal of the current dissertation. In comparison to other leadership styles, authentic leadership is a fairly new leadership style. Therefore, it seems evident to firstly investigate how this style is related to other concepts. Additionally, given the theoretical basis of authentic leadership and how it differs from other related leadership styles (see *Chapter 1*), one can argue that authentic leadership is related to different work-related outcomes and/or

the mechanisms and conditions in which this takes place can also differ. Therefore, the aim of the present dissertation was to identify different outcomes, mechanics and moderators which were related to authentic leadership. Even though future research should try to contrast authentic leadership from other leadership styles to see how the relationship with followers' well-being differ.

In *Chapter 1*, an overview was given of the authentic leadership style and how it is theoretically different from other leadership styles. However, future studies should still empirically test the difference between authentic leadership and other positive leadership styles. For example, Banks, McCauley, Gardner, and Guler (2016) investigated whether authentic leadership provided incremental validity above transformational leadership in a meta-analysis. Nonetheless, the results were mixed and the authors argued for additional research for clearing out the difference between those two constructs alone. Additionally, Ling, Liu, and Wu (2017) compared authentic leadership with servant leadership in relation to group-level trust and individual work outcomes. They found that both leadership styles had positive effects on followers' outcome, however the magnitude of the effects differed between those two leadership styles. Unfortunately, empirical studies on the comparison between authentic leadership style and other leadership styles are even more limited. Therefore, future research should focus on disentangling the different leadership styles (and not only focusing on authentic leadership in particular).

Apart from the suggestions for future research that arise from the overview of limitations both in this general discussion as well as in the discussion of the studies in *Chapters 2 through 5*, three more strands for future research are formulated in the following paragraphs.

First, the focus of this dissertation was mainly on the followers. Even though we investigated in all empirical chapters the role of authentic leadership, this was done using the perceptions of followers. Indeed, leadership can be seen as the way others (i.e. followers)

perceive their direct manager as a leader (Lord, Foti, & Phillips, 1982; Lord & Maher, 1990, 1991). This means that leadership is in the eye of the beholder (Nye & Simonetta, 1996). Looking at this from an authenticity perspective, we mainly focused on the other-oriented dimension, which can be seen as how the authentic leader relates to others, taking into account the collective norms and values. Applying this to the current dissertation, authentic leaders are only authentic when they are perceived by their followers as authentic. This, in its turn, will influence how followers feel and will affect their well-being at work.

However, we did not investigate how leaders' perception of their own authentic leadership alters followers' well-being. Or, in terms of authenticity, we did not consider the self-oriented dimension. It seems logic that, as being an authentic leader, those two perceptions should not differ: the leader perceives him/herself as authentic (self-awareness) and also reflects this to their followers (relational transparency). They, in turn, will pick this up and will also perceive their leader as authentic. However, it seems that there can be an incongruence between those perceptions. For example, Cerne et al. (2014) found disagreement between both perceptions. This means that leaders can rate themselves as highly authentic, but followers do not rate their leader as high authentic. Vice versa, leaders can rate themselves as low authentic whereas followers rate them as high. Thus, it can be the case that a difference between leaders' and followers' perceptions can influence their well-being at work. Furthermore, future studies should also focus on why this difference in perceptions occurs.

Second, even though the focus was on followers (and their perceptions and well-being), however, the research questions in the present dissertation were still formulated unidirectional: authentic leadership will be associated with followers' well-being. However, in terms of understanding authentic leadership more coherently, it is also important to study how followers influence their leaders and his/her (authentic) leadership style. Indeed, it is true that followership plays an important role in assisting leaders (Carsten & Uhl-Bien, 2012) and

that leaders are not the “great man” or “great woman” (Carlyle, 1841). Followers are not passive recipients, but can impact leadership processes (de Zilwa, 2014). However, studies on (authentic) followership influencing (authentic) leadership are still scarce. Along those lines, leadership and followership are dynamic relationships which influences each other continuously. Therefore, future research should focus on how followership influences leadership and how and why these relationships dynamically change.

Third, modern society nowadays evolves towards a digital society in which leaders have to lead virtually over different departments, organizations and even countries (Avolio, Kahai, & Dodge, 2001). Therefore, the question arises: how can you lead authentically when you do not have face-to-face contact with your followers? Indeed, the traditional leadership models (such as authentic leadership) are built upon face-to-face communications (Zigurs, 2003), such as providing feedback, rewards, encouragement, motivation, but also reprimands. This however, especially the latter, can be misinterpreted easily when digitally provided. Therefore, future research should also focus on how authentic leadership is presented in digital workspaces and how it can benefit e-teams.

Theoretical and Practical Implications

This dissertation contributes to a better understanding of followers’ well-being, authentic leadership and how they are related with each other. In terms of the proposed research questions, the current dissertation provides the following theoretical and practical implications:

First, it provides further evidence for the factorial validity of the Authentic Leadership Inventory (Neider & Schriesheim, 2011) when translated in Dutch. *Chapter 2* showed evidence for the second-order model with the proposed four theoretical dimensions (i.e. self-

awareness, relational transparency, moral perspective and balanced processing), which was replicated in two independent Flemish samples of followers.

Second, this dissertation provided additional insight in an antecedent for both authentic leadership and followers' well-being (i.e. authentic followership). *Chapter 3* argues that leaders' previous life experiences can influence both authentic leadership and authentic followership. Indeed, attachment theory (Bowlby, 1969, 1982) can provide a useful perspective to understand these previous experiences and how this impacts both leadership and followership. The portrayal of authentic leadership in terms of internalization of an attachment style is a promising finding, since attachment orientation is unrelated to genetic factors and is thus largely determined by previous environmental experiences (Crawford et al., 2007). Given the findings of this study, we encourage leaders to be aware of their previous life experiences and how this impacts their leadership style and followers' well-being. Indeed, certain reactions can be understood by previous experiences and personal history and can thus be framed and explained from this perspective. As a consequence, a promising pathway for authentic leadership development programs is to use these personal experiences and to provide experiential development exercises for their leaders in training.

Third, *Chapters 3 through 5* have shown evidence that authentic leadership is positively related to followers' well-being in terms of authentic followership, thriving, and job satisfaction. These studies provide further insights in the positive associations between authentic leadership and followers' well-being. Specifically, those three chapters provided evidence that authentic leadership can affect followers' well-being on all three levels as mentioned in *Chapter 1*. This dissertation provides evidence that authentic leadership is positively linked with followers' well-being which is focused on the work itself (i.e. thriving – *Chapter 4*), with followers' well-being focused on the work context (i.e. job satisfaction – *Chapter 5*), and with followers' well-being focused on their self-development (i.e. authentic followership

– *Chapter 3*). Together, this shows that authentic leadership is linked to a wide range of indicators of followers' well-being at work.

Fourth, *Chapter 4* found evidence that leaders' empathy can explain the relationship between authentic leadership and followers' thriving. Since empathy is part of emotional intelligence (Goleman, 2004), this study argues for the importance of leaders' emotional capacities, since this benefits followers' well-being. Thus, leaders should be aware of their emotional reactions towards followers, since this can impact their well-being at work.

Fifth, *Chapter 5* demonstrated that authentic leadership was positively associated with followers' job satisfaction when followers' experienced threatening change perceptions. In contrast with this, in followers who perceived these changes as slightly threatening, the association between authentic leadership and job satisfaction was diminished. In conclusion, it seems that authentic leaders help their followers in dealing with their threatening changes at work without loss of job satisfaction. Therefore, whenever changes are about to happen at the work place, it seems relevant to lead followers authentically to benefit or enhance their well-being during the change process.

In addition to this, this study made use of a lagged research design, which provides additional evidence for the long-term association of authentic leadership with followers' well-being. Only a limited amount of studies has studied the more long-term effects of leadership. Therefore, this study contributes to this field by linking authentic leadership with job satisfaction over time. This is relevant, since cross-sectional studies only provide a snapshot of the reality, which can be influenced by many other variables. However, by establishing this long-term relationship, we can argue that authentic leadership is a durable leadership style which can have positive influences on followers' well-being over a period of time.

Sixth, *Chapter 3* showed evidence that authentic leadership might be conceptualized as an explanatory mechanism as well. Indeed, we found that authentic leadership mediates the

relationship between leaders' avoidant attachment style and authentic followership. Thus, inauthentic leaders seem to not encourage authenticity in their followers, as reflected by lower levels of authentic followership. This again shows the importance of authentic leadership and how it can be associated with followers' well-being at work. Additionally, it provides an explanation on how leaders' personal history can influence this well-being. Indeed, through previous experiences, one might gain more self-concept clarity and self-knowledge, which fosters the development of authentic leadership behavior (Shamir & Eilam, 2005). This, in turn is associated to the well-being of their followers.

Conclusion

This doctoral dissertation wanted to provide more insight in followers' well-being at work and how authentic leadership plays a role in this. Therefore, we investigated six research questions related to authentic leadership and followers' well-being. First, we validated a Dutch measurement scale so authentic leadership can be administered in a Flemish context. Second, leaders' avoidant attachment style was identified as an antecedent for both authentic leadership and followers' self-development (i.e. authentic followership). Third, in three empirical studies we found that authentic leadership is positively related to different facets of followers' well-being. Fourth, leaders' empathy was found to be an explaining psychological mechanism in the relationship between authentic leadership and followers well-being. Fifth, contextual perceptions, such as change perceptions during an organizational merger, can influence the relationship between authentic leadership and followers' well-being. Finally, we found that authentic leadership can also be an explaining mechanism in the relationship between leaders' personal history and followers' well-being at work. As we found empirical evidence for these six research questions, this dissertation further contributes to the domain

of both authentic leadership and followers' well-being at work.

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Appendices

Appendix A: Nederlandse Samenvatting

Handelen op basis van je ware zelf: de rol van authentiek leiderschap in het verbeteren van het welzijn van volgers op het werk

Het psychologisch welzijn van werknemers blijft een relevant topic. Vroeger werd vooral onderzocht hoe men negatieve vormen van welzijn, zoals ziekteverzuim en burnout, kon voorkomen, diagnosificeren, en/of behandelen. Echter, recent wordt onder invloed van de positieve psychologie (Seligman & Csikszentmihalyi, 2000), positieve vormen van welzijn bestudeerd (bvb. job tevredenheid) en beoogt men ondermeer de antecedenten van het psycho-sociaal welbevinden te bepalen. Hierdoor is er, zowel bij de overheid als in het bedrijfsleven, een verschuiving in het beleid ontstaan: van behandeling of interventie naar het bevorderen en bekrachtigen van psychologisch welzijn (European Agency For Safety And Health At Work., 2014).

Eén van de belangrijkste factoren in de directe werkomgeving die een invloed heeft op het welzijn van de werknemers, is de directe leidinggevende (James & James, 1989; Kuoppala, Lamminpää, Liira, & Vainio, 2008; Landeweerd & Boumans, 1994; Tepper, 2000). De reden hiervoor is dat werknemers (of volgers) en hun directe leidinggevende veelal samenwerken op een regelmatige basis waardoor er veel contact is tussen beide partijen. Ook heeft de directe leidinggevende controle over bepaalde werkaspecten die een invloed kunnen hebben op de werknemers (bvb takenpakket, uurregeling en werkklimaat). Het is dan ook belangrijk dat

de directe leidinggevende de persoonlijke noden van zijn/haar werknemers herkent en deze eventueel inlost. Wanneer de directe leidinggevende hiertoe in staat is, zal dit bijdragen tot de vervulling van de psychologische noden van de werknemers (en dus een verhoogd welzijn) wat er voor zorgt dat deze werknemers beter presteren op het werk (Leroy, Anseel, Gardner, & Sels, 2015).

In dit proefschrift wordt er gefocust op één specifieke stijl van leiding geven, namelijk authentiek leiderschap. Deze manier van leiding geven wordt gekenmerkt door zelfbewustzijn, relationele transparantie, morele waarden en een gebalanceerde aanpak bij het zoeken en verwerken van informatie (Gardner, Avolio, Luthans, May, & Walumbwa, 2005). Doordat authentieke leiders zich bewust zijn van hun eigen sterktes, zwaktes, normen en morele waarden en dit ook communiceren naar hun volgers, kan verwacht worden dat een dergelijke leiderschapsstijl het welzijn van zijn/haar volgers ten goede komt. Eerdere wetenschappelijke studies hebben het verband tussen authentiek leiderschap en het welzijn van hun volgers reeds kunnen aantonen (v.b. Leroy et al., 2015; Cerne, Dimovski, Maric, Penger, & Skerlavaj, 2014; Laschinger & Fida, 2015).

Ondanks deze empirische evidentie en de recent toenemende populariteit van authentiek leiderschap, is het nomologische netwerk hiervan nog steeds beperkt in vergelijking met andere leiderschapsstijlen (Avolio, Walumbwa, & Weber, 2009). Het is ondermeer nog niet geheel duidelijk hoe en wanneer authentiek leiderschap gelinkt is aan verschillende aspecten van psychologisch welzijn. Verder onderzoek naar de verklarende mechanismen en de eventuele randvoorwaarden inzake authentiek leiderschap en psychologisch welzijn is dan ook nodig om deze leiderschapsstijl en zijn invloed beter te begrijpen. Daarom focust dit proefschrift zich op het uitbereiden van het nomologisch netwerk van authentiek leiderschap met betrekking tot het psychologisch welzijn van hun werknemers. Hierop gebaseerd worden er zes verschillende onderzoeksdoelstellingen geformuleerd.

Ten eerste wil dit proefschrift nagaan of authentiek leiderschap, zoals gepercipieerd door volgers, op een wetenschappelijk verantwoorde wijze gemeten kan worden in een Vlaamse context. Ten tweede onderzoekt dit proefschrift een mogelijke antecedent van authentiek leiderschap, om zo deze leiderschapsstijl te stimuleren en te ontwikkelen zodanig dat het welzijn van de volgers verhoogd kan worden. Ten derde probeert dit proefschrift de positieve relatie tussen authentiek leiderschap en het psychologisch welzijn te bevestigen aan de hand van drie verschillende welzijnsindicatoren: authentiek volgerschap, ‘thriving’ en job tevredenheid. Ten vierde wordt een mogelijke verklarende variabele onderzocht in de relatie tussen authentiek leiderschap en psychologisch welzijn, namelijk de empathie die de authentieke leider zou overbrengen naar zijn/haar werknemer. Ten vijfde onderzoekt dit proefschrift een potentiële moderator of beïnvloedende factor die mogelijks noodzakelijk is om deze relatie tot stand te brengen, namelijk de percepties die werknemers hebben over de veranderingen tijdens een fusie tussen twee organisaties. Ten zesde bekijkt dit proefschrift of authentiek leiderschap zelf een verklarende variabele kan zijn met betrekking tot het welzijn van zijn/haar volgers.

Deze zes onderzoeksdoelstellingen worden onderzocht aan de hand van vier empirische studies beschreven in *Hoofdstuk 2* tot en met *Hoofdstuk 5*.

In *Hoofdstuk 2* werd de factoriële validiteit nagegaan van de Nederlandstalige vertaling van de recentelijk in de Verenigde Staten ontwikkelde "Authentic Leadership Inventory" (Neider & Schriesheim, 2011). De resultaten tonen aan dat de vier theoretische dimensies (zelfbewustzijn, relationele transparantie, morele waarden en een gebalanceerde aanpak voor het zoeken en verwerken van informatie) onderscheiden en gemeten kunnen worden bij werknemers in de Vlaamse context aan de hand van deze Vlaamse vragenlijst. Daarenboven was er evidentie voor een hogere orde factor, die authentiek leiderschap representeert. Deze resultaten werden gerepliceerd in een gelijkaardige maar onafhankelijke tweede steekproef,

wat steun geeft voor de robuustheid van de resultaten in de Vlaamse context.

Hoofdstuk 3 onderzocht of een vermijdende hechtingsstijl een (negatieve) antecedent was voor authentiek leiderschap. Ook werd hier bestudeerd of authentiek leiderschap een verklarende variabele kon zijn in de negatieve relatie tussen de vermijdende hechtingsstijl en authentiek volgerschap (een indicator voor het psychologisch welzijn van de volger). Met dit opzet biedt dit hoofdstuk een antwoord op drie onderzoeksvragen, namelijk de vraag naar antecedenten van authentiek leiderschap, of authentiek leiderschap positief geassocieerd is met het welzijn van volgers en een verklarend mechanisme hierin kan zijn. Voor deze drie onderzoeksvragen werd empirische ondersteuning gevonden: een vermijdende hechtingsstijl was negatief gerelateerd aan authentiek leiderschap. De relatie tussen deze vermijdende hechtingsstijl en authentiek volgerschap kon verklaard worden aan de hand van authentiek leiderschap en authentiek leiderschap was positief geassocieerd met authentiek volgerschap.

In *Hoofdstuk 4* werden twee onderzoeksvragen onderzocht: enerzijds werd bestudeerd of authentiek leiderschap gerelateerd was aan ‘thriving’ (een indicator voor het psychologisch welzijn van de volger), anderzijds werd empathie van de leider opgenomen als verklarende variabele in deze relatie. Voor beide onderzoeksvragen werd er empirische ondersteuning gevonden.

Tenslotte, in *Hoofdstuk 5* werd onderzocht of authentiek leiderschap gerelateerd was aan job tevredenheid (een indicator voor het psychologisch welzijn van de volger) en of deze relatie afhankelijk kon zijn van de veranderingspercepties die de werknemers hebben over de fusie die op dat moment in uitvoering was in hun organisatie. Voor beide onderzoeksvragen werd er opnieuw ondersteuning gevonden. Een extra bevinding van dit hoofdstuk was de uitgestelde relatie: authentiek leiderschap werd één jaar voor de fusie gemeten, terwijl de veranderingspercepties en job tevredenheid werden gemeten tijdens het fusieproces in hun organisatie. Hierdoor biedt dit hoofdstuk ook evidentie dat authentiek leiderschap lange

termijn associaties kan hebben met het welzijn van volgers.

Samengevat geeft dit proefschrift meer inzicht in het welzijn van werknemers op het werk en hoe authentiek leiderschap hier een rol in speelt. We reiken een instrument aan om authentiek leiderschap te meten in een Vlaamse context en vonden evidentie voor een antecedent van deze leiderschapsstijl, met name de hechtingsstijl van de leider. Dit proefschrift biedt ook verdere evidentie voor de positieve relatie tussen authentiek leiderschap en het psychologisch welzijn van werknemers. Er is ook evidentie gevonden dat empathie van de leider een verklarende variabele is in deze relatie en dat deze relatie kan afhangen van de veranderingspercepties die werknemers hebben. Tenslotte biedt dit proefschrift evidentie dat authentiek leiderschap een verklarende variabele kan zijn in de context van psychologisch welzijn. Hierdoor draagt dit proefschrift bij tot de ontwikkeling van wetenschappelijke kennis inzake zowel authentiek leiderschap als het psychologisch welzijn van werknemers.

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Appendix B: Data Storage Fact Sheet 1

Name/identifier study:

Author: Anneleen Mortier

Date: 14h of August 2017

1. Contact details

1a. Main Researcher

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If a response is not received when using the above contact details, please send an email to data.pp@ugent.be or contact Data Management, Faculty of Psychology and Educational Sciences, Henri Dunantlaan 2, 9000 Ghent, Belgium

2. Information about the datasets to which this sheets applies

- Reference of the publication in which the datasets are reported:

Mortier, A. (2017). *Acting upon the true self: The role of authentic leadership in enhancing followers' well-being at work. Chapter 2.* (Doctoral dissertation). Ghent University, Ghent, Belgium

- Which datasets in that publication does this sheet apply to?:

The sheet applies to all the data used in this study.

3. Information about the files that have been stored

3a. Raw data

- Have the raw data been stored by the main researcher ☒ YES / ☐ NO
- On which platform are the raw data stored?
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 - ☒ research group file server
 - ☐ other (specify)
- Who has direct access to the raw data (i.e., without intervention of another person)
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 - ☒ responsible ZAP
 - ☐ all members of the research group

☐ all members of UGent

☐ other (specify)

3b. Other files

– which other files have been stored?

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Author: Anneleen Mortier

Date: 14h of August 2017

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2. Information about the datasets to which this sheets applies

- Reference of the publication in which the datasets are reported:

Mortier, A. (2017). *Acting upon the true self: The role of authentic leadership in enhancing followers' well-being at work. Chapter 3.* (Doctoral dissertation). Ghent University, Ghent, Belgium

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3. Information about the files that have been stored

3a. Raw data

- Have the raw data been stored by the main researcher ☒ YES / ☐ NO
- On which platform are the raw data stored?
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 - ☒ research group file server
 - ☒ other: Paper and pencil questionnaires are stored at the department.
- Who has direct access to the raw data (i.e., without intervention of another person)
 - ☒ main researcher
 - ☒ responsible ZAP
 - ☐ all members of the research group

☐ all members of UGent

☐ other (specify)

3b. Other files

– which other files have been stored?

☐ file(s) describing the transition from raw data to reported results. Specify:

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Appendix D: Data Storage Fact Sheet 3

Name/identifier study:

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Date: 14h of August 2017

1. Contact details

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2. Information about the datasets to which this sheets applies

- Reference of the publication in which the datasets are reported:

Mortier, A. (2017). *Acting upon the true self: The role of authentic leadership in enhancing followers' well-being at work. Chapter 4.* (Doctoral dissertation). Ghent University, Ghent, Belgium

Mortier, A. V., Vlerick, P., & Clays, E. (2016). Authentic leadership and thriving among nurses: the mediating role of empathy. *Journal of Nursing Management*, 24(3), 357 – 365. doi: 10.1111/jonm.12329

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3. Information about the files that have been stored

3a. Raw data

- Have the raw data been stored by the main researcher ☒ YES / ☐ NO

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☒ research group file server

☒ other: Paper and pencil questionnaires are stored at the department.

- Who has direct access to the raw data (i.e., without intervention of another person)

- main researcher

- responsible ZAP

- ☐ all members of the research group

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3b. Other files

- which other files have been stored?

- file(s) describing the transition from raw data to reported results. Specify: Explanation from raw data to data ready for analyses.

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☒ other: Paper and pencil questionnaires with the informed consent are stored at the department.

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Appendix E: Data Storage Fact Sheet 4

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Author: Anneleen Mortier

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3. Information about the files that have been stored

3a. Raw data

- Have the raw data been stored by the main researcher ☒ YES / ☐ NO
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 - ☒ research group file server
 - ☒ other: Paper and pencil questionnaires are stored at the department.
- Who has direct access to the raw data (i.e., without intervention of another person)
 - ☒ main researcher
 - ☒ responsible ZAP
 - ☐ all members of the research group

☐ all members of UGent

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3b. Other files

– which other files have been stored?

■ file(s) describing the transition from raw data to reported results. Specify: Explanation from raw data to data ready for analyses.

■ file(s) containing processed data. Specify: Data ready for analyses.

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■ other: Paper and pencil questionnaires with the informed consent are stored at the department.

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